

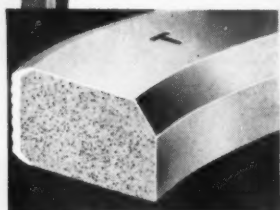
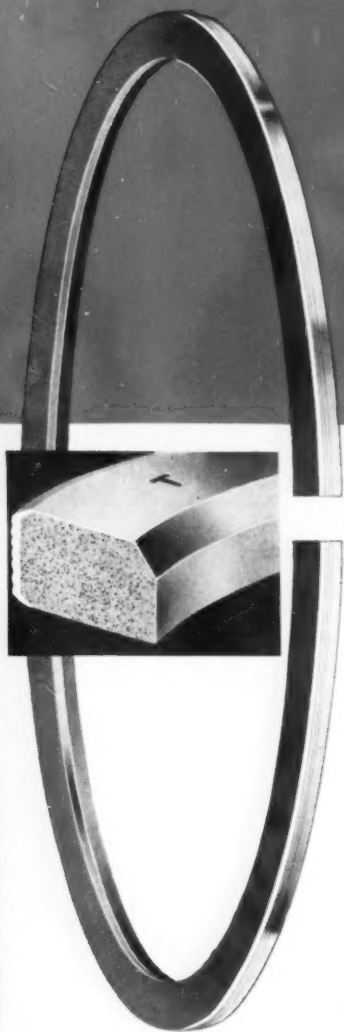
Chilton's **MOTOR AGE**

MARCH 1956



Jobber Executive Edition—follows page 32

NOT 80% NOT 90% BUT ALL
 major car manufacturers
 use Sealed Power compression
 and oil rings for original
 equipment and/or service.



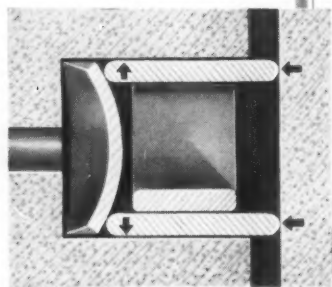
← **This is the Sealed Power IB-10U
 Chrome Top Compression Ring**

29 leading engine builders use Sealed Power Top Chrome Rings in original equipment
 Sealed Power also supplies many of these builders steel oil rings for original equipment use



← **This is the new
 Sealed Power CS-50U
 Side-Sealing Oil Ring**

Excessive oil cannot escape around ring under high vacuum conditions caused by deceleration, because the crowned spring forces side rails snugly against sides of ring groove. New spacer design assures a full flow of oil and resists sludging.



SEALED POWER CORPORATION • MUSKEGON, MICHIGAN

Sealed Power Piston Rings

BEST FOR RE-RING! BEST FOR RE-BORE!

Sealed Power Motor Parts—The Heart of the Engine • Rings, Pistons, Pins, Sleeves, Valves, Water Pumps

TRICKS OF THE TRADE *from* PERMATEX



COAT CHROME DISCS—Annoying rattle often develops when gravel or small stones get behind the chrome discs on car wheels. A thick coating of Form-A-Gasket No. 1 on the inside of the discs completely eliminates the noise.



STOP OIL SEEPAGE—Apply Form-A-Gasket No. 3 on both sides of gaskets to stop oil seepage around valve covers, panels and pan. It makes a perfect seal—won't harden—and gaskets are easy to remove the next time.

FORM-A-GASKET® Universal Sealing Compounds LEAKPROOF—PRESSURE-TIGHT

Check tips like these for new ways you can use Form-A-Gasket, best sealant going for leakproof, pressure-tight assemblies. Form-A-Gasket resists gasoline, water, hot or cold oil—many other liquids and gases. And it's specially made to withstand the pressures of high-compression engines.

Every Shop Needs All 3 Types



No. 1. Sets quickly
—dries hard

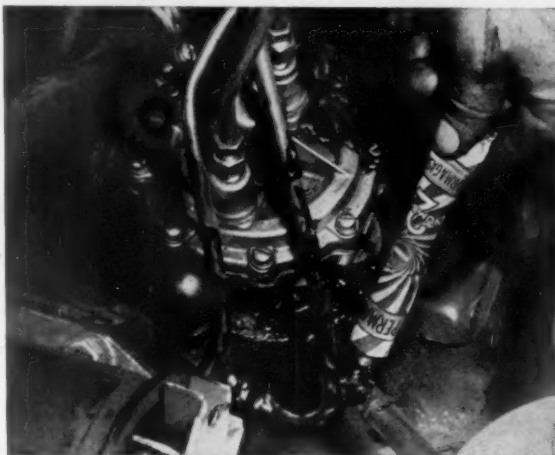


No. 2. Sets slowly
—remains pliable



No. 3. Brushable
liquid—remains tacky

Hundreds of uses around the house, too



FOR VAPOR LOCK TROUBLE—Coat the fuel pump and lines with Form-A-Gasket No. 2. It forms an effective insulation barrier at the hot spots.

PERMATEX COMPANY, INC.

Brooklyn 35, N.Y. • Kansas City 15, Kans.

More than 50 Chemical Products for Better Automotive Maintenance

They
must
come
clean!

"Astonishing!" says Sherlock McKanick, noted Blue Streak trouble-sleuth. "But it's true—even *brand-new* breaker points must be handled with care and inspected to be sure they're clean enough for their initial job in modern high-speed engines. Oil, grease or dirt may get on the tungsten surface *even during installation*, and may impair engine operation.

"Did you know, for example, that you should use carbon tetrachloride to clear off fingerprints

and smudges; and *never, never* use emery cloth or similar abrasives? Blue Streak Bulletin 70-52 is 'must' reading for any smart serviceman—it's loaded with practical tips."

Be one of the 40,000 Blue Streak Sherlock McKanicks and save costly delay and guesswork on hundreds of "engine mysteries". Register as a Blue Streak Dealer; you'll get a complete file of service tips. Write for Bulletin 70-52.

STANDARD MOTOR PRODUCTS, INC.
37-18 Northern Blvd., L.I.C. 1, N.Y.



Blue Streak

IGNITION PARTS

precision engineered for replacement



Chilton's MOTOR AGE, MARCH, 1956

Chilton's MOTOR AGE

WITH WHICH IS COMBINED AUTOMOBILE TRADE JOURNAL

Reg. U. S. Pat. Off.

For THE AUTOMOTIVE SERVICE INDUSTRY

75, No. 4

March, 1956

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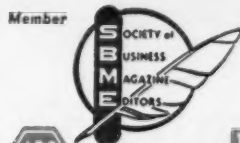
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Texas—8557 Eustis, Phone DAVIS 7-4178. Member of Audit Bureau of
Circulation.

MOTOR AGE. Published monthly by Chilton Co., Chestnut & 56th Sts., Phila. 39, Pa. Entered as Second Class Matter December 27, 1935, at the Post Office at Philadelphia, Pa.; Under the Act of Congress of March 3, 1879. Subscription price: United States, United States Possessions, \$4.00 for one year; \$7.00 for two years. Canadian, Foreign \$5.00 per year; \$8.00 for two years; single copies, 40 cents.

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MOOG POPULAR ASSORTMENT #3

contains 6 kits (2 spacers
per kit) . . . gives 90%
coverage.

List \$18.00

Dealer's Net . . . 9.90

Profit on Spacers . . 8.10

Labor (\$7 per pair) 42.00

TOTAL PROFIT . \$50.10



No service
operation is more
profitable for the time involved than install-
ing Coil Spring Spacers. And here's a Spacer
you can install with *confidence!*

Moog Spacers are tailored to fit snugly in
the A-frame seat . . . and are designed with
a Built-in Stop, exactly like the "stop" in
the A-frame recess, to hold coil in *original*
factory position. Results: greater stability
and no chance of "spring squeak."

CAUTION: Moog Coil Spring Spacers have been
road-tested and approved by Moog engineers.
Available in $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{5}{8}$ " thickness, Spacers
raise vehicle approximately 3 times their thickness.
However—if auto has sagged more than 2 inches
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indicating that coils are hitting together under
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Moog Coil Springs.

Moog Flange-Type Compensators for front coils with
flat ends are also available. See your Moog Jobber.



GHQ for Chassis and
Suspension Parts

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says **R. T. HORGAN**, President, Ralph Morgan, Inc., Ford dealer of New York City.

"No question about it, **COMMERCIAL CREDIT**'s well-established reputation has helped us increase sales. Their advertisements in *Life* and other magazines have been of great assistance and the many benefits to the purchaser make this plan attractive to sell. As a large dealer, we benefit by **COMMERCIAL CREDIT**'s nation-wide coverage. The way men from their local office work closely with our salesmen has been very helpful."



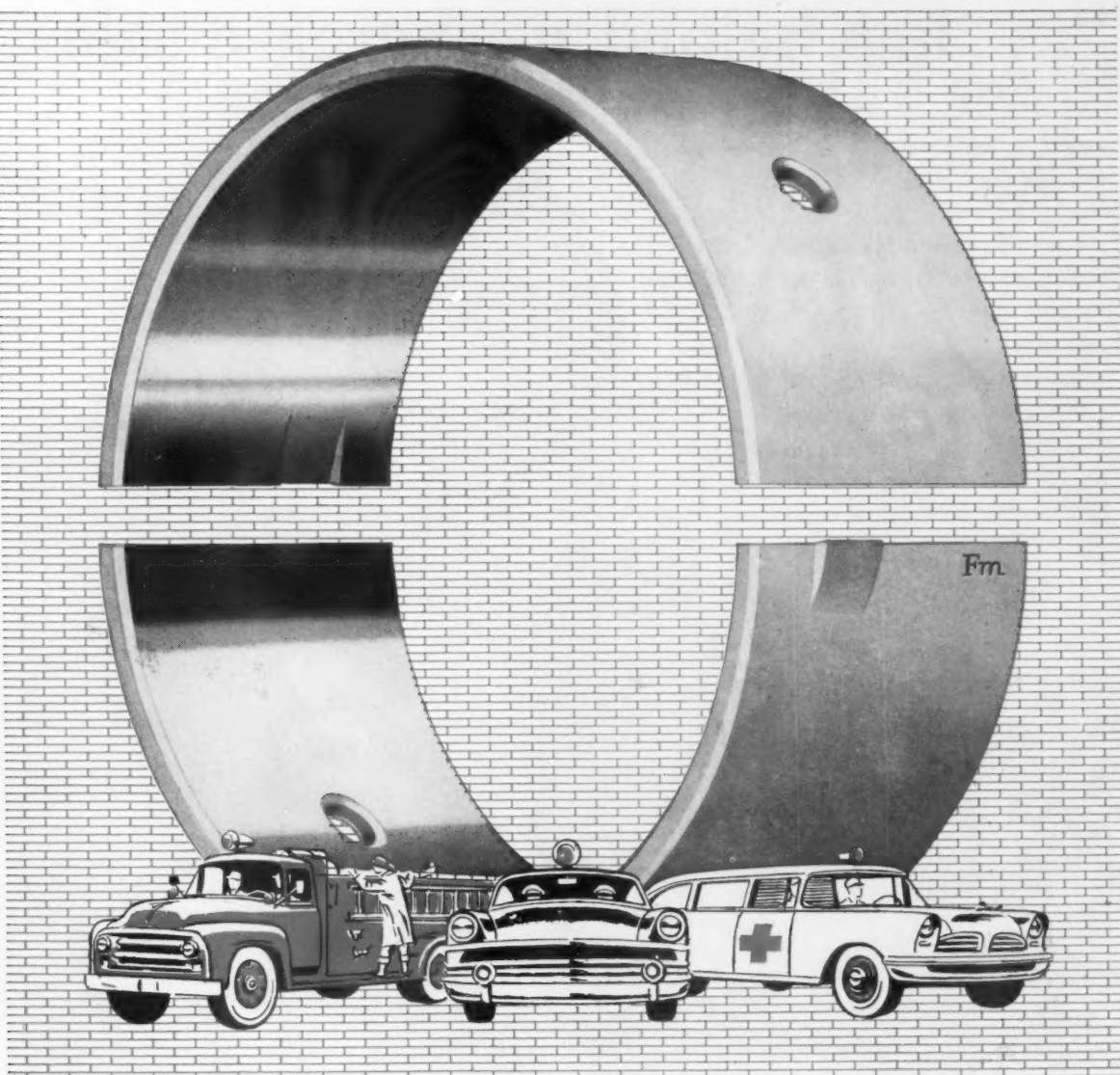
Commercial Credit dealers are successful dealers

Write or call our nearest office for complete information. Why not do it today?



COMMERCIAL CREDIT CORPORATION

A service offered through subsidiaries of Commercial Credit Company, Baltimore . . . Capital and Surplus over \$180,000,000 . . . offices in principal cities of the United States and Canada.



Where performance counts most

GIVE THEM Fm QUALITY!

Ambulances, police and fire vehicles have urgent jobs. And so do the farm tractor, the highway truck and the salesman's car. Performance *really* counts!

When you overhaul the engine, *always* replace the bearings. It's the only sure way to rebuild performance. Replace—in sets—with genuine Federal-Mogul oil-control bearings. They're the *best-known brand* for car, truck, bus and tractor replacement. Ask your Federal-Mogul jobber!

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"It's Sen-sational..."



...the selling we do for TEXACO DEALERS!"

Everybody knows this well-dressed man, Jimmy Durante. Three Saturday nights out of every four, he brings his gags, his gals, his guest stars, and his famous line-up of fine Texaco products into millions of television-owning homes. The show is The Texaco Star Theater — on the coast-to-coast NBC-TV network.

TV is just one part of the huge Texaco advertising program: radio, magazines, newspapers, billboards, station display and many other sales-building promotions. They're *all* helping — every day — to sell Texaco Dealers, their fine products and their services to motorists all over the U. S. A.

THE TEXAS COMPANY



No wonder TEXACO DEALERS are such busy dealers!

DELCO-REMY PRESENTS THE NEW KLAXON "K-3" HARMONIZING AUTO HORN

**This third horn blends with standard twin horns
to create a distinctive new musical sound!
Here's how it can mean more sales for you:**

To boost your accessory volume in 1956, Delco-Remy brings you the new Klaxon "K-3" Harmonizing Auto Horn. This third horn, by blending its note with the two notes of present twin horns, gives a car a distinctive, musical new voice.

The new Klaxon "K-3" can be installed quickly in millions of cars now in use. At low cost, too. National advertising in The Saturday Evening Post will help you sell, so be prepared to get your share of this profitable business. See or call your nearest General Motors dealer or United Motors distributor today, for complete details.

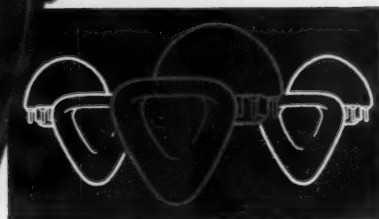
DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA



GENERAL MOTORS LEADS THE WAY—STARTING WITH

Delco-Remy

ELECTRICAL SYSTEMS



▲
By blending its note with the two notes of present twin horns, the new Klaxon "K-3" Harmonizing Auto Horn makes today's cars sound as good as they look!



The car says **GO** and the price won't stop you!

Winning the Decision Against Cars at All Prices!

Pontiac takes them all on . . . and comes through with flying colors every time!

And no wonder! Pontiac's mighty 227-horsepower Strato-Streak V-8 is the industry's most modern high-compression engine . . . more than a match for cars costing hundreds of dollars more.

And all this blazing power is smoothed to perfection by Pontiac's exclusive new Strato-Flight Hydra-Matic Drive* . . . a revolutionary new kind of automatic transmission that combines the positive action of gears with a revolutionary new liquid-link coupling for silken smoothness.

In busy city traffic and out on the road, Pontiac outperforms them all!

And in every other respect this car overtakes the finest in features although it overlaps the lowest in price!

Certainly no car is more distinctively beautiful . . . with styling so new and fresh the experts are calling it a tip-off on a trend.

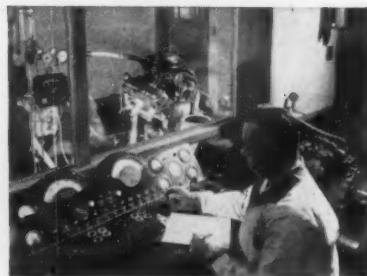
Few cars put more road-leveling length between front and rear wheels . . . where it counts . . . or deliver the safety of so much sure-footed solidness.

They're calling Pontiac the greatest go on wheels! But it's more than that. The facts prove . . . and enthusiastic owners from coast to coast agree . . . Pontiac's America's finest motoring value.

*An extra-cost option.

'56 PONTIAC®

PONTIAC MOTOR DIVISION OF GENERAL MOTORS CORPORATION



GOING FULL BLAST 100 HOURS WITHOUT A REST!

Pontiac engineers put the Strato-Streak through its paces to prove its dependability! They gave it full throttle for 100 hours straight . . . ran it wide open for the equivalent of 10,000 miles. And the Strato-Streak came through purring like a kitten . . . with virtually no wear. This kind of creative testing and engineering keeps Pontiac America's finest motoring value!



More and more and more...



dealers are taking on the new AC FILLER CAP LINE

BECAUSE...

AC can provide better service!

No other company in the filler cap business can approach the sales-service organization AC provides. Several hundred AC representatives, located in every part of the country, give you service and sales assistance when you need it.

BECAUSE...

AC provides one source of supply!

Now, you can use one order form . . . receive only one invoice for all the AC products you buy. There is no need to contact a separate filler cap source.

BECAUSE...

AC offers General Motors quality!

No name in the automotive industry is more highly respected than General Motors. That name is an assurance of acceptance by all your customers.



LOCKING GASOLINE CAPS



RADIATOR PRESSURE CAPS



OIL FILLER CAPS

**AVAILABLE QUICKLY
FROM YOUR REGULAR**



SUPPLIER



AC SPARK PLUG



THE ELECTRONICS DIVISION OF GENERAL MOTORS • FLINT, MICHIGAN



A one-cylinder Cadillac sold for \$750 ...
and the first
FITZGERALD GASKETS
were made

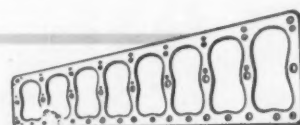
FITZGERALD GASKETS today are engineered to provide the extra strength and ruggedness required for a lasting, perfect seal in modern high compression engines.

Since 1906 "FITZGERALD" has stood for top quality materials and workmanship, combined to make truly dependable gaskets — for every engine, gasoline or diesel.

**THE FITZGERALD
 MANUFACTURING CO.**

TORRINGTON, CONNECTICUT

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GREASE RETAINERS • CORK GASKETS

FITZ-RITE TREATED FIBRE GASKETS

FOR OIL, GASOLINE

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COMPLETE SETS FOR MOTOR REBUILDERS





SELLING SLANTS

FROM DU PONT—MAKERS OF 'ZERONE' AND 'ZEREX' ANTI-FREEZE



How an Anti-Freeze Drain-Out Program Can Make Extra Profits for You

WINTER-WORN ANTI-FREEZE CAN CAUSE ENGINE DAMAGE

Most drivers still don't know that after a winter's use anti-freeze solutions can turn acid and cause excessive rust and clogging. This in turn can cause overheating and serious engine damage. For this reason the National Bureau of Standards in Circular 506 says: "Under no circumstances should anti-freeze solution remain in the cooling system during the summer, as its deterioration will be much more rapid under summer driving conditions."

When you take the time to explain these reasons for anti-freeze drain-out to customers, you open the door to the extra profits of a complete spring check-up. You get the opportunity to replace worn fan belts and cracked hoses, as well as other vital cooling system parts. This is good business for you—and a service your customers will appreciate.

FREE PROMOTIONAL MATERIAL FOR EXTRA SPRING PROFITS

If you want to make these extra spring profits with an anti-freeze drain-out program, you should get one of these effective drain-out banners (shown above) to attract customers to your station. The banner and 50 mailing cards are yours free when you reserve your 1956 supply of Du Pont "Zerone" and "Zerex" anti-freeze. Ask your supplier for further information or write to Du Pont.



This red and blue drain-out banner is yours free when you reserve your 1956 supply of "Zerone" and "Zerex" anti-freeze. Use it to make extra profits now!

Why It's Smart to Reserve Your Anti-Freeze Now

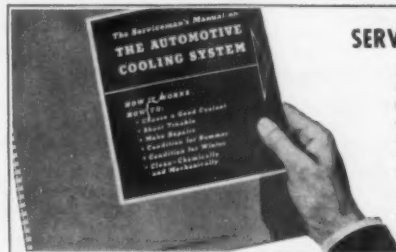
Remember last fall and how the first cold snap brought in so many anti-freeze customers that you had to rush them through or watch them drive off to another station? Or maybe you were one of those dealers who ran short of anti-freeze and lost profits.

This year play it smart. You know you are going to need anti-freeze this fall, so order early to be sure of having all you need in the container sizes you want.

And if you do this you can take advantage of this *selling slant*:

Increase your anti-freeze profits by winterizing your customers' cars *before* the first freeze. Then you can pick up extra anti-freeze business when the first cold snap does come.

And remember—your customers will be asking for Du Pont "Zerone" or "Zerex" anti-freeze—so reserve your supply now!



SERVICE TIP from the Du Pont Cooling System Manual*

Here's how to check a thermostat: remove thermostat . . . clean by flushing with water. Read opening temperature (marked on valve face, side or bottom) and hang thermostat in a deep pan or other container filled with water. Heat water, measure temperature with a thermometer, and note when valve starts to open. If the thermostat opens at a temperature more than 10° higher or lower than marked, replace it.

*This 44-page manual is available from Du Pont at the low cost of \$1.95. It contains everything you need to know about the automotive cooling system. Send your check to the address below. Du Pont will pay shipping costs.

WHAT'S YOUR FAVORITE SELLING SLANT?

Do you have a favorite *selling slant* that you would like to share with other dealers? Send it to Selling Slants (address below) and we'll print as many as we can. Your comments and questions are also invited.

TOP TEAM AGAIN!

Record sales for the 1955 season show Du Pont "Zerone" and "Zerex" were again America's favorite anti-freeze team. More motorists chose Du Pont brand anti-freeze than any other brands. Good reason for reserving your '56 supply now!



MISS ANTI-FREEZE OF 1955 (Helen Olson) hopes you too had a record season selling "Zerone" and "Zerex" . . . and hopes you're reserving your Du Pont anti-freeze early for an ever better '56!

WRITE TO:
SELLING SLANTS
E. I. DU PONT DE NEMOURS & CO.
Zerone-Zerex Section
Nemours 2420-A, Wilmington 98, Del.

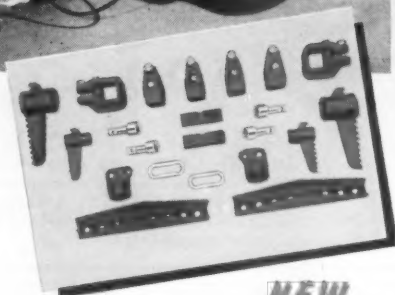


ZERONE® and ZEREX®
ANTI-FREEZE

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

Are you losing body jobs to competitors?

Rate the PROFIT POWER of your PORTO-POWER



NEW

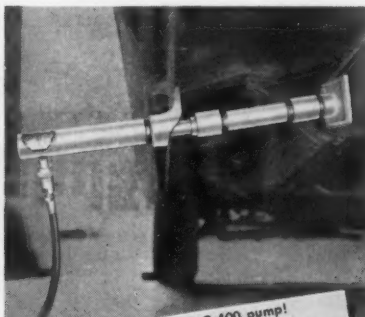
Multi-Purpose Pull Clamps

Exclusive new techniques snap damaged metal into position without stretching or distortion. For Bantam "Porto-Power" get "Pull Clamps" ass't AZ-12 (\$52.80) — for 10-ton get ass't FZ-13 (\$59.25).

With complete "Porto-Power" Pull-clamp attachments, a panel aligning job (shown) is done faster, easier and better — for lower labor costs and more profits.



Check... do you have this PROFIT POWER?

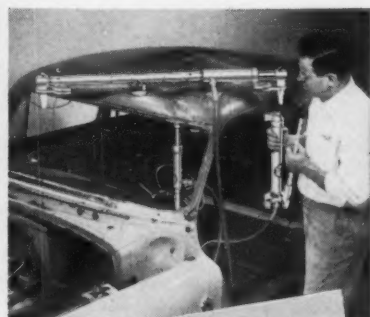


NEW

World's Fastest Body Jack!

Bantam "Porto-Power" is more powerful, more foolproof than ever. New rams and couplings permit amazing speed. Get the "Bantam" SA-50 (\$44.00) hydraulic unit — and RC-640 (\$19.50) Pull Ram.

Such up-to-date "Porto-Power" is a must for jobs like that shown above — rocker panel being easily straightened with Bantam spreader combination.



NEW

Make Set-ups In Half The Time!

"Lock-on" double purpose tubing slides together *instantly* — for 50% faster set-ups. Can also be threaded together. Get the "Bantam" AZ-13 ass't (\$21.50) or FZ-14 (\$36.90) 10-ton "Lock-on" tubing.

In photo above, deep dents are pulled from car top with quick "Porto-Power" set-up with pull clamps and links, offset pull toes, "Lock-on" tubing and pull rams.

BLACKHAWK®

BLACKHAWK MFG. CO., Dept. P-636, Milwaukee 46, Wisconsin

World's Largest Manufacturer of HYDRAULIC TOOLS

Prices subject to change without notice

DISCOVER IF YOUR SHOP IS EQUIPPED TO MAKE BIDS THAT GET THE BUSINESS AT A PROFIT!!!





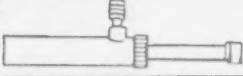



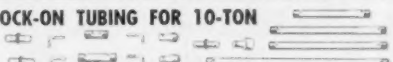
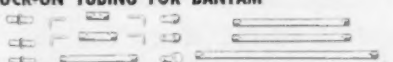


Thousands of body shops have already rated themselves, plugged up the gaps in their "Porto-Power" equipment and are now fully competitive. They have found that it takes up-to-date "Porto-Power" equipment that's complete and in good shape to run a body service that's efficient by today's standards. You can do the same . . . quickly and easily. Just take these three steps to MORE PROFITS!

STEP 1

Take a quick inventory of your "Porto-Power" — check the principal hydraulic units, major attachments and auxiliary equipment pictured below. Mark the quantity of each in column one. Next multiply that quantity figure by the "profit rating" of the item and enter in column two.

NUMBER IN SHOP	TOTAL PROFIT POWER RATING
----------------------	------------------------------------

Clip completed form — see your Blackhawk jobber or mail to Blackhawk for ideas to increase your Profit Power

10-TON HYDRAULIC UNIT		S-71 (\$63.75) — The heart of all major body repair work. Absolutely necessary for all reinforced sections. Used with attachments for hundreds of setups. PROFIT POWER RATING 10%		
BANTAM HYDRAULIC UNIT		NEW — SA-50 unit (\$44.00) — with fast-action pump, spring-return ram. Has full 4-ton capacity for today's modern cars. Greater power, faster work on all light sheet metal repair. PROFIT POWER RATING 10%		
WEDGIE		SA-4 or SA-6 (\$21.90) — The fast, profitable answer to troublesome dents and creases in fenders, doors, cowl and body sections. Built-in ram opens jaws 3/4" to 3/4". PROFIT POWER RATING 7%		
SPREAD RAM		SA-7 (\$36.50) — Heavy-duty, long-reach, wide range spreader really does the job for bringing out dents in deep fenders, panels, etc. PROFIT POWER RATING 4%		
BANTAM PULL RAM		NEW — RC-640 (\$19.50) "Spring-Back" 2-ton pull ram developed to lick tough direct pull operations. Compact, lightweight and fast! Speeds work on panel sections, trunk, door and fender alignment. PROFIT POWER RATING 6%		
BANTAM SHORT RAM		RC-618 (\$11.45) — A compact, squat-type ram for most effective push in smallest spots. Gets in, works fast where it's impossible to hammer or pry — for fender work, headlights, tail fins, insides of doors. PROFIT POWER RATING 5%		
MULTI-PURPOSE PULL CLAMPS — BANTAM		NEW clamp set (\$33.30) gives more ways to pull, more speed and easier setups. Eliminates distortion and warping on light sheet metal sections, increases versatility of present "Porto-Power." PROFIT POWER RATING 7%		
				
MULTI-PURPOSE PULL CLAMPS — 10 TON		NEW — (\$59.25) For faster work, more compact setups, better workmanship on tough, reinforced metal sections. Pull-Clamp hook-ups pull damaged metal from outside the panel — pull damaged sections into alignment in one operation. PROFIT POWER RATING 7%		
				
LOCK-ON TUBING FOR 10-TON		NEW — FZ-14 (\$36.90) modern Lock-On tubing knocks 50% off time required to make push, pull and spread setups. Can be used with standard tubing. PROFIT POWER RATING 8%		
LOCK-ON TUBING FOR BANTAM		NEW — AZ-13 (\$21.50) Lock-On tubing and attachments slide together quick as a wink, and presto — are locked by a spring-backed button. Makes all Bantam equipment more efficient, steps up shop earnings. PROFIT POWER RATING 8%		
ADJUSTABLE BODY SPOONS		Z170 Ass't (\$9.80) For use with either Bantam or 10-ton units. All shapes and sizes to handle many different contours — restore original curvature of body panels. One fork and various spoons give 14-24 different angles for bringing out damage in low and high crown areas. PROFIT POWER RATING 5%		
STORAGE PANEL STEEL WORK BENCH AND HOLDING RACK		FZ-27 (\$269.85) Holds all attachments plus 2 rams and spreader. Keeps all equipment in one place. Organizes your shop. Has Door Bar and Adjustable Clamping Arms that rigidly hold any body section. Handle bulky fenders, heavy doors, deck lids, hoods for all repair work, even sanding and finishing. PROFIT POWER RATING 13%		
GENERAL ASS'T OF BASIC ATTACHMENTS		Includes such vital items as Shorty and Midget Rams; Connectors; Pull Plates; Clamp, Ram, Spreader and Plunger Toes; Spreaders; Adapters; Saddles; "C" Clamps; Flex-Heads; Clamp and Wedge Heads; Chain and Chain Pull Plates; Wheel Pullers; Ram Base Extensions, etc. Need majority of these in good condition for high rating. PROFIT POWER RATING 10%		

only
BLACKHAWK
makes
Porto-Power

STEP 2

"Profit Power" ratings printed above in red add up to 100% which represents what EACH body man should have. So — add up the right hand column and enter total in Box A. Next divide by number of men who use this equipment. Enter answer in Box B — the "Profit Rating" of your "Porto-Power".

A

STEP 3

Bring yourself up to 100% by ordering the equipment necessary to fill the gaps and bring your methods and profits up to standard. See your Blackhawk jobber promptly.

B

To bring your Porto-Power up to full profit power, be sure to contact the nearby jobber who is HEAD-QUARTERS for BLACKHAWK HYDRAULIC TOOLS.

NOW...

A POWERFUL NEW APPEAL WILL BOOST SPRINGTIME

Over the years, millions of dollars have been spent to educate car owners on the importance of periodic oil changes—and especially the importance of getting rid of dirty winter oil in the spring.

Car owners now know and appreciate the value of springtime oil changes. But what many of them don't know is that misfiring plugs cause oil dilution—and that misfiring plugs will thin out their brand-new summer oil, waste their hard-earned dollars.

Here's a story that's one of the first really new merchandising ideas

the spark plug business has seen in years. In the next few weeks, we're going to tell it nationwide—in powerful, dramatic spring advertising.

It's going to make a lot of sense to most motorists because it offers a sound and convincing reason for them to buy new plugs.

It likewise offers a sound, convincing way for you to sell new sets of 5-rib Champions and make extra profits at oil-change time. You can make the most of its great profit potential by asking every lube rack customer to let you check his plugs when you change his oil.

*Sincerely,
Jim L*

P.S. Here's further proof of Champion's full-firing dependability. A Champion-equipped Jaguar driven by Ronald Adams beat out 350 competitors in Europe's toughest, longest motoring event, the Monte Carlo Rally. And a Sunbeam, also using Champions, won the Manufacturer's Team Prize for the third straight time.

CHAMPION SPARK PLUG

TO CAR OWNERS THAT SPARK PLUG SALES



"Don't change to
summer oil without
a spark plug check"

CHAMPION

5-RIB SPARK PLUGS

COMPANY • TOLEDO 1, OHIO

Chilton's MOTOR AGE, MARCH, 1956



ARLENE DAHL, beautiful film star and noted beauty columnist says

"I like the strong, quiet type!"

And, your customers will like the strong, quiet type, too . . . mufflers, that is. The strongest, quietest mufflers built are Maremont! Maremont is the *only* muffler designed with the exclusive Electronic Dynamometer*—a combination of super-sensitive electronic devices that have revolutionized muffler design. It tells the exact details of construction necessary to remove *all* noise peaks from high compression engines! Strong and quiet—that's Maremont!

* PAT. PENDING

sell and install strong, quiet

MAREMONT MUFFLERS

The right design . . . for every engine!

MAREMONT AUTOMOTIVE PRODUCTS, INC.

1600 South Ashland Avenue, Chicago 8, Illinois



Phony Fables about Oil Seals



Fable No. 1

"Always send out when you need new seals"

OK, if you want to. But it's a lot more profitable to reach into your own oil seal cabinet, get the right seal, and finish up the job first class and fast.

Everyone recommends new seals whenever old ones are removed. Make this an easy, automatic procedure in your shop. Ask your jobber to install a National Oil Seal service stock. He'll keep it current, weed out old numbers—no work for you. You get complete application data, quantity prices, and an all-steel cabinet with extra room for bearings.

Make a note now: "ask jobber about National Oil Seal service stock."



Support this
industry-wide
program



NATIONAL MOTOR BEARING CO., INC.

GENERAL OFFICES: Redwood City, California
PLANTS: Redwood City, California and Van Wert, Ohio



Small National seal stock.
Over 50 front wheel seals.
Ideal for lube stations.



Large National seal stock.
Over 100 front and rear wheel
seals for garages, brake shops.

NATIONAL
OIL & GREASE SEALS
O-RINGS SHIMS

Approved original equipment for all cars, trucks,
buses, and tractors.



Need a jack, JACK?

**NOW IS THE TIME
TO SEE YOUR JOBBER FOR
THE WALKER "JOB-FITTED"
JACKS YOU NEED!**

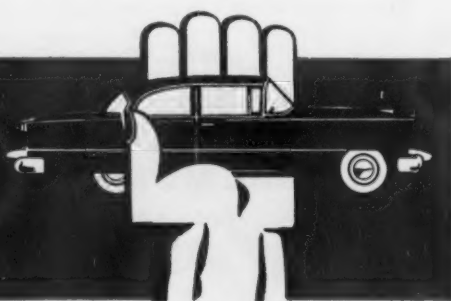
● It's here! A money-saving opportunity to get world-famous Walker Jacks priced to fit your budget. A chance to own the specialized lifting equipment that will pay off in bigger shop profits for you—year after year!

You get all the top quality in these dependable Walker Jacks that has made them the standard of the industry for more than a quarter-century. See your Walker Jobber today!



**WALKER MANUFACTURING CO. OF WISCONSIN
RACINE, WISCONSIN**

Jacks • Exhaust Silencers • Oil Filters



**BUY WALKER NOW
AND SAVE TWICE!**

Save with WALKER'S **BIGGER DOLLAR VALUES!** *Save* with WALKER'S **EXTRA FEATURES!**

You get Walker high quality, as always—
more jack per dollar than ever!

Designed with you in mind—to save you
time, labor and money for years.



WALKER
"Handy Boy"

—New No. 99 Hydraulic
One-End Bumper Lift

A TOP VALUE!—NOW

\$89⁷⁵



WALKER
"Greyhounds"

—World's Finest
Floor Service Jacks

AS LOW AS

\$125⁷⁰



New WALKER
"Car S'ports"

—Low Cost Adjustable
Car Supports

AS LOW AS

\$12⁵⁰
a pair



WALKER
"Uni-Cradle"

—No. 48 Automatic
Transmission Jack

A BARGAIN BUY!

\$277⁰⁰

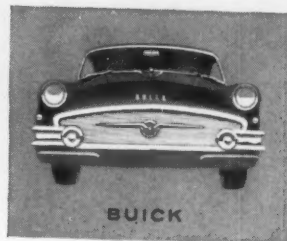
All prices Suggested Dealer Net

WALKER *leads in* **JACKS**



Some spark plugs are designed for low speeds,

ONLY POWER TIP



Now ! First and only spark plug



ignition-engineered for today's



engines and today's driving



Some spark plugs are designed for high speeds, but . . .

"FIRES UP" AT ALL SPEEDS !

From Auto-Lite . . . a great new spark plug that solves dealers' biggest problems, opens up a vast new profitable market!

It had to come! 65% of all cars built in the last five years have overhead-valve engines. Yet not until Auto-Lite developed the Power Tip had there been a spark plug completely "ignition-engineered" for these modern, high-compression, high-horsepower engines.

The Auto-Lite Resistor Spark Plug with Power Tip solves your greatest problem. Up until now you could never be sure what heat-range of spark plug to install for best results. "Hot" plugs were satisfactory for city driving but caused pre-ignition at higher highway speeds. "Cold" plugs worked well for highway driving but fouled easily at slower city speeds. Whichever one you used left you open to costly "come-backs."

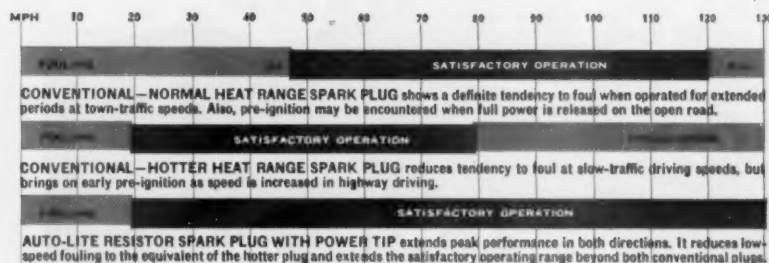
But revolutionary Power Tip is hot at low speeds, cool at high speeds—the only spark plug that operates at peak efficiency at all speeds! The Power Tip gets hot faster at low speeds to resist fouling. It's "in the thick" of combustion so deposits burn away clean. Yet it prevents danger of pre-ignition at high speeds because it gets full benefit of cooling intake gases. Thus, Power Tip eliminates heat-range guesswork . . . "fires up" modern engines for top performance and economy at all speeds.

5 reasons why Power Tip can increase your profits:

- 1 Power Tip is the *first and only* spark plug that works at peak efficiency at all speeds in all overhead-valve engines using 14 mm. spark plugs. Owners of these cars are immediate prospects.
- 2 Power Tip is specified as original equipment on many leading makes of our finest cars—enables you to take advantage of this huge ready-made market.
- 3 Power Tip eliminates guesswork, reduces profit-robbing "come-backs."
- 4 Power Tip increases customer satisfaction, hence increases your sale of other products and services.
- 5 Power Tip eliminates the necessity for carrying special hot and cold plugs for overhead-valve engines, gives you faster turnover and more profit.

It fits all these cars with overhead-valve engines using 14 mm. spark plugs . . . Buick, Cadillac, Chevrolet, Chrysler, DeSoto, Dodge, Ford, Hudson, Imperial, Lincoln, Mercury, Nash, Oldsmobile, Packard, Plymouth Pontiac, Studebaker. It's *good business* to call your jobber for a supply of Auto-Lite Resistor Spark Plugs with Power Tip. Do it today!

ENGINEERING CHART SHOWS HOW ONLY POWER TIP DELIVERS TOP PERFORMANCE AND ECONOMY AT ALL SPEEDS!



It's the POWER TIP
that makes
the difference!



AUTO-LITE RESISTOR SPARK PLUG WITH POWER TIP

THE ELECTRIC AUTO-LITE COMPANY • Toledo 1, Ohio

In modern overhead-valve engines, you can't win the battle of combustion from the "sidelines." Projecting ceramic tip—the Power Tip—extends spark gap inward toward center of combustion chamber. Ignition takes place closer to heart of fuel mixture. Fuel burns more evenly and completely. In many cases, fuel mixture can be made leaner for better economy with no sacrifice in power or performance.

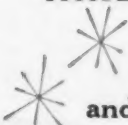
V.I.P.P.





DELCO DRY CHARGE BATTERIES

TAKE THE WORRY OUT OF STOCKING BATTERIES


 with a new convenient electrolyte package
 and a battery that can be stored indefinitely

Imagine! A battery that can be stored indefinitely—and still be as fresh and full of power as the day it was made, once you add electrolyte. That's Delco for you. And that's why it's Delco dry charge batteries for me, from now on!

As for the electrolyte, Delco's figured that one out, too. All you do is rip off the top of the handy, disposable container, pour in the electrolyte—and, man, that battery's rarin' to go!

You can store odd sizes as well as popular sizes, knowing that they can't get old before they're sold. Speaking of sizes—Delco has them all. Six and 12-volt capacities, four fine lines that fit every purse and purpose, and new longer warranties.

Yessir, it's a cinch to stock Delco Dry Charge Batteries.



PARTS SALES



TUNE IN | ON TV...Spectacular "Wide Wide World," on NBC Network.
 ON RADIO...Lowell Thomas Newscast on CBS Network. See local listings for time and station.

GENERAL MOTORS LEADS THE WAY—
STARTING WITH DELCO BATTERIES

Here's

SAVE! $\frac{1}{2}$ to $1\frac{1}{2}$ hours
PER JOB

with **EXCHANGE SHOE SETS**
RELINED WITH GENUINE
Wagner

RELINED WITH GENUINE
Wagner
CoMaX
SLING

BRAKE LINING

BRAKE LINING
EITHER "BONDED ON" or "RIVETED ON"
Exchange Sets

Application Data Brake Shoe Exchange Sets

1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765

[illegible]

You can depend upon WAGNER QUALITY because Wagner Products are used as original equipment by manufacturers of cars, trucks, buses and trailers.

Est.
1891

Wagner

*...the best known
name in brake service*

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID... NaPol... CoMoX BRAKE LINING... AIR BRAKES... TACHOGRAPHS... ELECTRIC MOTORS

a short-cut to more profitable brake service



You can save time and money with
EXCHANGE BRAKE SHOE SETS
relined with

Wagner® CoMaX BRAKE LINING
either "bonded-on" or "riveted on"

You will save from ½ to 1½ hours per reline job when you use Wagner Exchange Shoe Sets. They save you the tough, time-consuming job of delining, cleaning, and relining. Wagner shoes are reconditioned in mass quantities according to highest factory standards to assure minimum cost... and full customer satisfaction. They will not only speed up customer service and job turnover, but will eliminate costly equipment purchases, inventory obsolescence, and extra payroll during peak periods.

All Wagner Exchange Shoe Sets are lined with Wagner Brake Lining. This performance-proven lining assures safer, smoother stops... more miles between relines... fewer brake adjust-

ments. In dual-friction sets, as in single friction sets, CoMaX is uniform in density, composition, and frictional qualities throughout the service thickness of each lining. It will never compress, absorb moisture, or deteriorate with age. It withstands excessively high operating temperatures... contains no harmful abrasive material to injure drums.

Wagner Exchange Shoe Sets are available for all popular passenger cars and some light trucks with both standard and over-size lining thicknesses, either "bonded-on" or "riveted-on". You can get these shoes as well as Wagner Lockheed Hydraulic Brake Parts and Fluid from one reliable source—your nearest Wagner Jobber. See him today!

Wagner Electric Corporation
6498 PLYMOUTH AVENUE, ST. LOUIS 14, MO.
(Branches in principal cities in U. S. and in Canada)



TELL ME HOW TO UP PROFITS
...by becoming a Wagner Franchised Dealer. I understand that there is no charge or obligation.

NAME _____

FIRM _____

ADDRESS _____

CITY, ZONE & STATE _____

B56-1



...TRANSFORMERS... INDUSTRIAL BRAKES

Ready to Move! New Chevrolet



Champs of every weight class !

Anything less is an old-fashioned truck!



Task·Force Trucks for 1956 !



New 10000 series Triple-Torque tandem, above, rated up to 32,000 lbs. G.V.W. New 3100 series pickup, at left.

New heavyweight champs — including new Triple-Torque tandems rated up to 32,000 lbs. G.V.W., 50,000 lbs. G.C.W.! Husky new lightweight and middleweight champs, too!

Chevrolet dealers are now ready to set new truck sales records with the most modern truck fleet ever assembled—the biggest, brawniest line of Chevrolet trucks ever built.

It offers champs of *every* weight class—including four new heavy-duty series.

It brings owners new power for every job, with a modern short-stroke V8 for *every* model—and a completely new 322-cubic-inch Loadmaster V8 for high-tonnage hauling. Both V8's and 6's deliver high-torque power—not just more power, but high *usable* power to turn the wheels and move the loads!

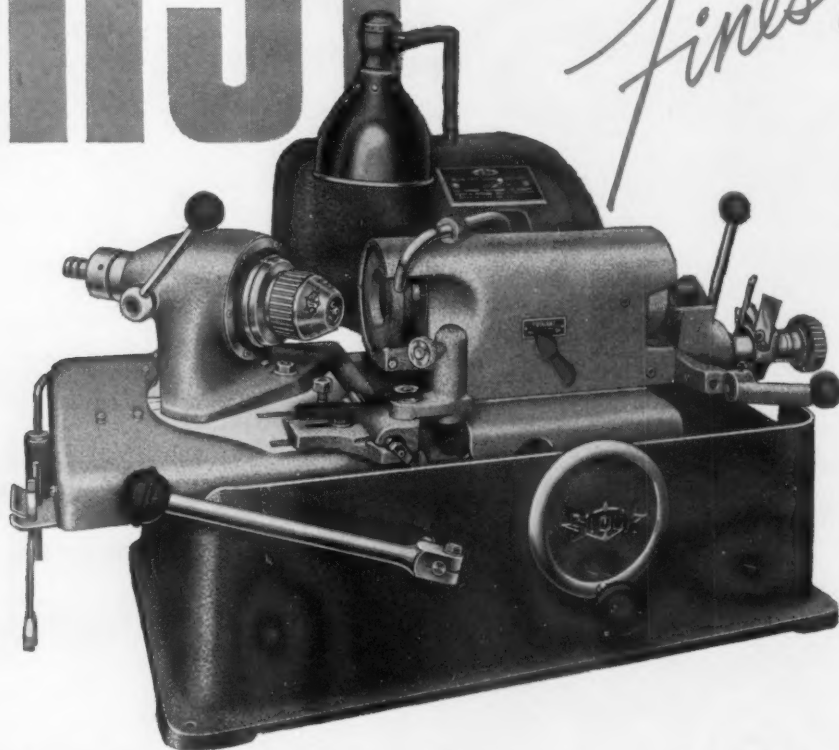
Then there's a new choice of transmissions—an automatic for every series with new Hydra-Matic models and Powermatic, a new six-speed automatic, plus new five-speed manual transmissions.

And there's a lot more that's new besides! Like tubeless tires, standard on all models, more powerful brakes on most heavy-duty models, new colors, new cab interiors.

Everything points to another great truck year for Chevrolet dealers, the consistent leaders in truck sales since 1937. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

FIRST

*Because
it's
finest!*



Leadership is not easily nor quickly established. Sioux Valve Grinding Machines have proven their worth over a period of 25 years. *More Sioux Machines are in use today than all other makes combined.*

It performs all valve refinishing operations, grinds valves, chamfers, trims stem ends, grinds tappets, grinds rocker arms, and cuts valve stem ends by micrometer

attachment. It's a complete unit—nothing else to buy. Wet grinding is built in with removable coolant tank. Wet grinding reduces wheel dressing, eliminates heat and distortion, producing the finest finish and factory precision.

You can buy a Sioux Valve Face Grinding Machine with confidence. See your Sioux Distributor.



USE SIOUX ALL THE WAY THROUGH

STANDARD THE WORLD OVER...

ALBERTSON & CO., INC.

SIOUX CITY, IOWA, U.S.A.

ELECTRIC IMPACT WRENCHES • GRINDERS
FLEXIBLE SHAFTS • POLISHERS • SANDERS
HAND SAWS • DRILLS • ABRASIVE DISCS

What makes customers come back for more?



They'll all come back if you give 'em the best. When it's a bearing job... *just tell 'em it's TIMKEN!*

A barber shop to spruce up your customers, while you tuned up their cars might keep business humming at a good clip. But a much better... and more profitable... way to get a bigger cut of car service work is to let your customers know that you give them the best in workmanship and replacement parts. When it comes to tapered roller bearings, for instance, just tell 'em it's Timken®. It's the one name

your customers *know* means quality in bearings. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
TAPERED ROLLER BEARINGS

NOT JUST A BALL ○ NOT JUST A ROLLER □ THE TIMKEN TAPERED ROLLER □ BEARING TAKES RADIAL, ◯ AND THRUST — ◯ — LOADS ON ANY COMBINATION ✱



Blue Sunoco Meets New Higher Premium Standards *Still At Regular Gas Price*



**NO WONDER
IT'S THE BEST
SELLING PREMIUM
GASOLINE IN
SUNOCO
TERRITORY**

PREMIUM IN EVERY WAY

**OCTANE
POWER
STARTING
PERFORMANCE
MILEAGE**

but it's still at regular gas price

Right now Sun's advertising in newspapers, magazines and on the air, is telling car owners why New Blue Sunoco is, today more than ever, America's greatest gasoline value!

It's higher in premium octane quality yet *still sells at regular gas price!*

WANT TO DOUBLE YOUR GALLONAGE?

A Sunoco dealership may be available in your community. Call our local office or write us direct: Sun Oil Co., Philadelphia 3, Pa.



SUN OIL COMPANY, Phila. 3, Pa.

executive section Jobber

News NotesFrom the Editors

Dateline San Francisco

WITH MORE THAN 750 MAIN STORE JOBBER SPONSORS, 400 exhibitors occupying 657 display booths in San Francisco's Civic Auditorium the eighth annual Pacific Automotive Show scored another record hit among regional shows, last month.

ATTENDANCE FIGURES NOT YET RELEASED (as we go to press) are unnecessary, for the show's success could be judged by the wave of satisfaction among manufacturers and wholesalers, and, also, by the jam of service retailers when the doors were open to the latter.

WHOLESALEERS FROM ALL SECTIONS of the country, New England, the Southeast, the Midwest all lent national character to the Pacific triumph. Louis J. Cresta, president of the PAS, and Cresta Brothers Auto Parts, and J. Leonard Gibson, executive manager, both expressed satisfaction over show results and their thanks to the many hard working directors and committee members.

MEWA to Follow 1956 Regionals

AFTER IT'S HIGHLY SUCCESSFUL and well attended convention, themed "Golden Gate to Profits," MEWA announced that it would hold business conferences in connection with established regional shows.

MEWA BOARD OF DIRECTORS REAFFIRMED this policy at it's meeting prior to the show. Thus, MEWA regional conferences will be held this year in connection with regional shows at Philadelphia, Houston and Minneapolis and at the Southeast regional conference at Ashville. N. C. MEWA's statement said policy applies to regionals scheduled for 1957 at Boston, Dallas, Miami and St. Louis and in 1958 at Los Angeles and other cities.

AWDA Charts Future Course

AUTOMOTIVE WAREHOUSE DISTRIBUTORS ASSN. decided to hold yearly meetings in Chicago toward the year's end. Idea is to meet jointly manufacturer affiliate members to enable such manufacturers to present their plans and programs for the ensuing year.

NSPA Will Hold Annual Conventions

FOLLOWING THE CONCLUSION OF NSPA's "For Greater Profits in '56" (4GP/56), which, an NSPA spokesman said, was the best attended and most enthusiastically received in the thirty-two year history of the association.

HAL MILLER, WOMWELL AUTOMOTIVE PARTS, INC., and new NSPA president, announced that the NSPA board of directors had unanimously voted to hold the 1957 NSPA convention in Boston immediately prior to the opening of the New England Regional Automotive Show, the 1958 convention in Los Angeles and the 1959 convention in Chicago.

THE BOARD OF DIRECTORS consisting of nine regional wholesaler vice presidents and nine manufacturer directors indicated that by this plan, the full services of the Association would be brought to members in all parts of the country on an equitable basis.

Car Dealer Tells Why

"WHY I LIKE TO DO BUSINESS WITH MY LOCAL JOBBER," was the subject of Walter B. Cooper's talk at NSPA's convention. Mr. Cooper, a car dealer from Fort Collins, Colo., and an NADA director, said:

"THEY (MY JOBBERS) ARE IN A POSITION to check my stock on selected items which we usually buy from them and keep it in balance without using the time of my parts manager. On exchange items, they are in a position to pick them up and . . . they save me the expense of packaging the parts and shipping them.

"IT SAVES TIME AND IT SAVES MONEY. It saves investment which you might not think is important, but when we ship parts to a faraway point, or to our own factory, naturally our money is invested . . .

"ANOTHER DISTINCT ADVANTAGE on the part of our local parts distributor is their ability to supply from their inventory, parts needed on short notice. When you realize that the average automobile dealer turns his parts inventory scarcely more than twice each year, then you can realize the value of using someone else's inventory. . ."

Salesmen Are Becoming Specialists

A GROWING TREND TOWARD MORE JOBBER SALESMEN specializing in equipment rather than miscellaneous lines, was noted by speakers at the Equipment Tool Institute Meeting in Detroit in February.

SUCH SALESMEN GET FACTORY TRAINING on how to sell, set up, and operate their particular line of equipment. Manufacturers are supplying training aids such as catalogs, slides, and movies.

UMS Engine Exchange Program

UNITED MOTORS SERVICE SOON WILL ANNOUNCE an engine exchange program. It reportedly will enable UMS dealers to deliver a new engine complete with warranty at a very low differential over the rebuilt engine price. Also involved is a refund allowance on the old motor when turned in to the jobber.

Divisions Combine

THE AMERICAN BRAKEBLOK AND SINTERMET DIVISIONS of the American Brake Shoe Company have been combined into a single division. To operate under the Brakeblok name, the new division will make brake lining, laminated plastic materials and powdered metal friction materials.

OPERATION

JOBBER

Merchandising with the Calendar

THE months of March and April are good business months for automotive jobbers. In average years, these two months represent 7.5 per cent and nearly 8 per cent respectively (or a total of 15.5 per cent) of the jobber's total annual volume. They are indeed good months to start heavier sales, advertising and promotional activities, preparatory to the "Prepare Your Car For Spring and Summer" selling campaign, immediately following.

Again this month we are singling out selected high-volume, Key Lines for a coordinated drive that should be supported by intense selling efforts of salesmen (outside and inside) and extra advertising and publicity,

At right in the calendar illustration is the suggested list of products selected for PLUS EFFORTS.

In aggregate sales, these Key Line products represent almost 20 per cent of the average jobber's total business. While this group of products find ready acceptance and sale every month, a special drive at this season of the year will produce added sales volume.

Most all manufacturers of the Key Line products mentioned have a definite selling campaign that



can be successfully used by jobbers. If you do not know of the exact plans of your suppliers, then this information should be obtained.

TIPS:

- (1) Set quotas in dollars and/or units for each Key Line. Base quota on past and expected sales for each of these products.
- (2) Hold clinics or dealer meetings.

Advertising has tremendous power when it is tied into definite plans and objectives of a selling campaign. Don't overlook advertising! Your competitors never overlook it! Some tried and true ways for advertising to do a better job for you are:

1. Mail Key Line circulars to your ledger account list and "Cash" customers. Don't overlook "Cash" Customers as a part of your promotional area. Many jobbers do!

2. Distribute dealer catalogs on these lines. If you can not cover all customers and prospects with catalogs, make up a special list to get catalogs, based on a special list of large potential customers.
3. Feature lines in both window displays and on counters.

Feature Key Line products in small newspaper ads, especially if you are located in a town or small city where newspaper rates are not prohibitive. Write your suppliers for special ads and product stories. You'll be surprised at the good publicity you can drum up!

signs of the times

Automotive Regional Shows Get Displays

R. K. McConnell, advertising manager, Federal-Mogul Service Div., and chairman of the Automotive Advertisers Council Industry-Wide Program Committee, has announced that arrangements have been completed for the use of two spectacular electric "Get It From Your Jobber" and "Care Will Save Your Car" displays at all 1956 Regional Automotive Shows.

4th in Air Cargo

Auto parts and accessories placed fourth among the 10 top cargo commodities carried by United Air Lines in 1955, according to R. L. Mangold, manager of cargo sales.

Ranked by total weight flown, the nine other leading freight items shipped during the year were machines and machine parts, cut flowers, electrical equipment, printed matter, wearing apparel, hardware, aircraft parts and accessories, film and advertising matter.

MEMA '56 Officers

Officers of the Motor and Equipment Manufacturers Association for 1956 as announced by MEMA's New York headquarters are: president, H. F. Griffin (Griffin Lamp Co.); vice-president, H. R. LaTowsky (E. I. du Pont de Nemours & Co.); secretary, C. H. McAleer (McAleer Mfg. Co.); and treasurer, C. P. Brewster (K-D Mfg. Co.)



JOHN M. HEFFELFINGER, vice president of the Booser-Test Management Service, Indianapolis, is shown here (on the left) with James M. Baker, vice president and general manager of The Weatherhead Company, Fort Wayne Division, and Edmund T. Duffy, sales manager of the Automotive-Distributor Division, on the occasion of Heffelfinger's address before the Automotive-Distributor Division.

ASI Anti-Monopoly Committee Formed

As a result of the hearings before the Senate Anti-Monopoly Subcommittee, a dinner meeting of representative wholesaler and manufacturer members of the Automotive Service Industry in the Greater Chicago Area was called by J. L. Wiggins recently in Chicago. Following a three hour conference and discussion period, the consensus of those present was that a permanent industry-wide committee should be formed immediately to carry on the work already begun.

Following discussion, Ira Saks, Vice President of Maremont Automotive Products, Inc., Chicago, was selected as Executive Director of the Committee. He was granted leave of absence by Maremont in order that he might devote full-time to the work of this industry-

wide committee. William J. Menghini of Springfield Auto Supply Company, Springfield, Illinois, was appointed Secretary-Treasurer.

This Committee will be known as the "Anti-Monopoly Committee of the Automotive Service Industry."



IRA SAKS

So. Jersey Jobber Association Formed

Jobber representatives from all sections of South Jersey met during the latter part of January and formed an organization called "South Jersey Automotive Jobbers Association." Charter officers and directors were elected.

V. P. Bresan, of the Jersey Supply Company, Camden, N. J., was named President. The Vice-President's post went to Vernon Miller, of the J. C. Miller Company, Hammonton. Paul Erhardt, of Paul Erhardt Inc., Salem, was elected Secretary. Channon McCaw, of Millville Motor Parts Co., Millville, got the assignment of Treasurer.

O'Mahoney to Speak

C. "Bud" Connell, Philadelphia's Automotive Booster Club Dinner Chairman, has announced that Senator Joseph C. O'Mahoney will address the April 10 Kick-Off Dinner sponsored by the B-18 Booster Club for the Middle Atlantic Regional Automotive Show.

The Show will be held at Philadelphia's Commercial Museum April 11-14.



THE ANNUAL NIEHOFF sales meeting was held recently by C. E. Niehoff & Company. The Chicago automotive parts manufacturer combined the meeting with an intensive training program covering product information and selling techniques. Salesmen from all Niehoff territories in the United States attended the Chicago gathering and were honored with a dinner. C. E. Niehoff (wearing glasses, right foreground) presided over the meeting.

Charles C. Tapscott Resigning March 31

Charles C. Tapscott, vice president of the McQuay-Norris Manufacturing Company, has resigned his position effective March 31st, according to a joint announcement. Tapscott has been in charge of all advertising and sales promotion activities of McQuay-Norris, having been connected with the company for nearly 34 years.

Tapscott is a past president of National Standard Parts Association, Automotive Advertisers Coun-

cil, Advertising Club of St. Louis, Industrial Marketing Council of St. Louis, Roadside Business Association and Advertising Distributors, Inc.

He is generally credited with having originated the "Get It From Your Jobber" and "Care Will Save Your Car" programs and was awarded the Automotive Advertisers Council Citation in 1951 for distinguished service to the automotive industry.

No announcement of future plans will be made until after an extended Florida vacation.



DISTRICT MANAGERS and members of headquarters staff of Thermoid's Automotive Replacement Division who attended the 1956 annual sales meeting in Trenton, N. J. Among those in the photo are (1st row extreme right)

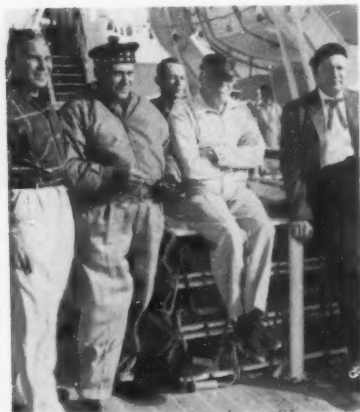
S. E. Shepard, sales manager; (2nd row extreme left) Bertram S. Petersen, advertising manager; George S. Lamson, vice president and general sales manager; Charles Scholz, director of marketing, in the order named.



HOW TO MATCH automobile colors when spot retouching is necessary drew the attention of automotive jobbers at a recent Sherwin-Williams meeting in Cleveland. Shown here discussing the subject are (left to right): Bruce Campbell, Sherwin-Williams automotive representative; J. A. Barber, J. A. Barber & Son Co., Youngstown; L. E. Lazarus, Ohio Battery & Ignition Co., Canton; and J. H. Haller, Automotive Supply & Equipment Co., Akron.

Kent-Moore Sets Up Five Sales Regions

Kent-Moore Organization, Inc., engineers and manufacturers of special automotive service tools and equipment, announces the es-



SCENE from the North Carolina Automotive Wholesalers Fall Convention cruise to Bermuda last year. Taking part in the trap shooting contest off the fantail are (front row, l. to r.) NCAWA executive secretary J. F. Jones, Jr., Frank McKenzie (Automotive Supply Co., W. Va.), Governor of North Carolina Luther H. Hodges, and NCAWA president E. L. Brown.

tablishment of five national sales regions to service their jobber outlets and car factory accounts from coast to coast.

"The new arrangement has been made to implement our expanding jobber sales program and to provide better service for our car factory accounts," says Marshall Chambers, distribution sales manager.

The regions, set up to cover the entire United States, are the Eastern, Southern, Midwest, Central, and Pacific regions.

AAC to Hold Spring Meeting in Virginia

The Spring Meeting of Automotive Advertisers Council will be held at The Homestead, Hot Springs, Va., May 22, 23, 24, 25, 1956, according to an announcement made by President Sam R. Robinson, advertising manager of the Grey-Rock Division of Raybestos-Manhattan, Inc., Manheim, Pa. This meeting will mark the sixteenth anniversary of the Council which was formed in 1941.

E. D. Meeker Named To Advisory Group

The Motor and Equipment Wholesalers Association has delegated Mr. Edward D. Meeker, vice-president, Wheels, Inc., New York, to the Wholesaling Advisory Committee of the National Sales Executives, Inc. In line with its policy of fostering the welfare of automotive wholesalers, MEWA is cooperating in the nationwide program of the National Sales Executives, Inc.

Within the sales organization there are set up three advisory committees — on retailing, wholesaling, and manufacturing. The committee members draw on their broad general knowledge of the wholesaling industry and its problems to create a program for discussion of trends and problems at the various economic levels.



NEWLY appointed to sales and advertising posts, three Raybestos Div. executives pose with division and corporation heads at the 1956 Raybestos National Sales Conference. Left to right: William S. Simpson, vice-president and general manager, Raybestos Div.; David E. Cunningham, advertising manager who was appointed assistant sales manager, Replacement Products; Jerome W. Brush, Jr., assistant sales manager, Replacement Products, who was appointed to the new post of manager, Special Products; John F. D. Rohrbach, president, Raybestos-Manhattan, Inc.; Robert C. Calderone, sales representative, appointed to post of advertising manager, Raybestos Div.



IN A THREE-DAY SESSION of meetings stressing the theme "greater customer service," ninety-four key sales executives, zone managers and their assistants of United Motors Service Division of General Motors gathered in Anderson, Indiana from all over the country. Roland S. Withers, UMS general manager, pointed out the great sales gains made in 1955.

Industry Meetings

Apr. 11-14—Middle Atlantic Regional Automotive Show, Commercial Museum, Philadelphia, Pa.

Apr. 23-24—Middle Atlantic Automotive Wholesalers Association spring meeting, Sheraton-Park Hotel, Washington, D. C.

May 10-13—Southwest Automotive Show, Houston Coliseum, Houston, Tex.

May 25-26—Southeast Automotive Show trade conference, Asheville, N. C.

June 3-6—Automotive Engine Rebuilders Association, 34th annual convention, Sherman Hotel, Chicago, Ill.

June 7-10—Upper Midwest Automotive Trade Show, Minneapolis Auditorium, Minneapolis, Minn.

Sept. 20-22—Automotive Parts Rebuilders Association convention and Trade show, Edgewater Beach Hotel, Chicago, Ill.

Automotive Wholesalers' Sales and Inventories

Bureau of the Census, Department of Commerce

Per Cent Change

Region	Sales			Inventories	
	Dec. 1955 from Dec. 1954	Dec. 1955 from Nov. 1955	12 Mos. 1955 from 12 Mos. 1954	Dec. 1955 from Dec. 1954	Dec. 1955 from Nov. 1955
New England.....	+10	-13	+10	+ 5	0
Middle Atlantic.....	+25	-16	+19	+10	-2
East North Central.....	+19	- 6	+ 9	+ 8	-8
West North Central.....	+ 5	- 4	+17	+23	-5
South Atlantic.....	+ 1	-13	+14	+ 5	-2
East South Central.....	- 2	-14	+ 5	+15	+3
West South Central.....	+21	-10	+18	+ 8	-2
Mountain.....					
Pacific.....					
Entire United States....	+10	-13	+13	+ 8	-2

Indicators of Business Activity

These figures are based on latest thirty-day reports

	Latest Data	Month Before	Year Ago	Percentage Change from— Month Ago	Year Ago
PRODUCTION					
Motor Vehicles (Units).....	717,000	799,009	725,379	- 9.8	- 1.1
Industrial—F. R. B. 1947-'49=100(Adj.).....	144	144	130	None	+10.8
SALES					
New Cars.....	480,000	630,488	440,024	-23.9	+ 9.1
Replacement Tires (Units).....	3,297,525	3,592,047	3,468,218	- 8.2	- 4.9
Manufactures (\$ Millions)					
Durable Goods.....	\$13,659	\$13,721	\$11,570	- 0.5	+18.0
Non-durable Goods.....	\$13,629	\$13,622	\$12,527	None	+ 8.8
Department Stores, 1947-'49=100.....	125	122	116	+ 2.4	+ 7.7
GENERAL					
Consumers' Price Index, 1947-'49=100.....	114.7	115.0	114.3	- 0.3	+ 0.3
Civilian Employment.....	62,891,000	64,165,000	60,150,000	- 1.9	+ 4.5
Unemployment.....	2,885,000	2,427,000	3,347,000	+18.9	-13.8

Motor Age's Who's Who

John D. Hinton has been appointed general sales manager of the American Brakeblok Division



of American Brake Shoe Company. He will continue to be located at division headquarters in Detroit.

James T. W. Moseley has been appointed executive engineer of Holley Carburetor Company.

Chet D. Hirsch has been appointed service manager of the Allen Electric and Equipment Company. **Thurrell D. Lyle** has become manager of the company's newly created Southwestern sales division and **Harold Jensen** is now manager of the North central division.

William V. Shakespeare has been named assistant to the president of the new Cincinnati Rubber Co. division of Thor Power Tool Company.

Joseph E. Cox has been appointed vice president of Thermoid Company and general manager of Essex Rubber, a Thermoid division.



A. T. Schutz has been appointed general sales manager for the P & G Manufacturing Company. He will supervise world-wide distribution and sales for the firm.

H. E. Markley has been named assistant to the president of Timken Roller Bearing Company. **George L. Deal** is now secretary and treasurer for the same company.

George B. Wilkinson has been appointed general sales manager of the hydraulic jack divisions of Hein-Werner Corporation. **Harry J. Scullin** has been appointed assistant sales manager, also, for all divisions.

Peter Page has been appointed general manager and member of the board of directors of Lodge Spark Plug Company.

Robert K. Ruland (left) has been elected vice president and general sales manager of Deluxe Products Corporation, subsidiary of Walker Manufacturing Co.



Harold Parker (right) has been elected vice president and plant manager and **C. O. Van Vactor** has become assistant sales manager for the same company.

Donald B. Roberts has been appointed Missouri Valley division manager for the Permacel Tape Corporation.

Mel Cain has been named district representative covering Nebraska, Wyoming, Montana, and western Iowa.

Dan H. Andrew has been promoted to the position of manager of the Detroit automotive sales and service division of Thermoid Company.

E. W. Atkinson has been appointed a sales representative for Gould-National Batteries, Inc.

Harris W. Botruff has been elected to the newly created position of vice president in charge of industrial and public relations for Sealed Power Corporation. In assuming this new position he becomes an officer of the company.



Jules F. Saut has been named manager of sales to the automotive industry for Reynolds Metals Company.

Dean C. Smith has been elected vice president of manufacturing at Thor Power Tool Company. **John A. McGuire** has been elected to a full vice presidency, and **George A. Kautz** has been appointed assistant treasurer.

John A. McGuire, vice president of labor relations of Thor Power Tool Company, has been elected to a full vice presidency of the company.

Spencer H. Mieras has been appointed president and general manager of Warner Automotive Parts Division of Borg-Warner Corp.

Charles S. Hempelman has been named market analyst for the Le Roi Division, Westinghouse Air Brake Co.

William A. Brown, Jr., has been appointed general manager of the Alemite and Instrument Division



of Stewart-Warner Corporation. He formerly was president of The Liquid Carbonic Corporation.

*Rumors Are Wrong
The Dead Phantom
100% Warranty Payments
High Sales—Big Backlog
Low Priced Lines Gain
Cool, Cool Engines
New Paints—New Methods*

Automotive Accountants Seek National Association

A GROUP OF AUTOMOTIVE ACCOUNTANTS among car dealers plans to take soundings on the possibilities of organizing city, state and regional chapters which would eventually lead to a national association of these figure wizards.

Rumors Are Wrong! No '57 Models Until Oct.

CAR COMPANIES AND DEALERS ARE CONCERNED about loose talk of early introduction of 1957 models. Some reports hint new offerings will come as early as midsummer. Such erroneous reports can hurt sales by encouraging prospective buyers to wait for new models if they expect them soon.

A THOROUGH CHECK SHOWS that nearly all companies plan October and November announcements. They couldn't get ready before that time even if they wanted to. One or two models might show in September, but most will be in October.

IGO of America Organizational Plans

RALPH JAMES, EXECUTIVE DIRECTOR of Independent Garage Owners of America (IGO America) indicated last month in San Francisco that the garage-men's association was planning a program of instructions on "how to organize a local or state association and federate with the national IGO of America."

The "Phantom" Looks Dead

"PHANTOM FREIGHT" AND UNIFORM PRICING of automobiles throughout the country appear to be a dead issue. The Big Three have adjusted their freight rates to approximate cost and General Motors flatly says the move eliminates so-called phantom freight.

THIS INDICATES NO FURTHER ADJUSTMENTS are contemplated, which still leaves a price differential between points near the factory and those farthest away. The spread, however, is greatly reduced under the latest adjustment.

Franchise Changes—Will Dealers Retain the Profits?

SWEEPING CHANGES IN CAR DEALER FRANCHISES were made basically to give dealers a better profit position. It remains to be seen whether dealers will retain the wider margin resulting from economic gains or trade it away to meet competition.

THE NET RESULT OF SOME CONCESSIONS is to lower dealer's operating costs, such as greater obsolescence allowances, 100 per cent warranty recovery, and so on. Others provide more security for dealer tenure or termination.

100% Payment on Warranty Work

ONE HUNDRED PER CENT PAYMENT for warranty work on labor has been, or will be, adopted by all car companies. This move may work out in either of two ways. Dealers may tie up much more space and mechanics' time in warranty work now that they get full recovery, and shunt more customer repair work to independent shops.

ON THE OTHER HAND, dealers might take the opposite tack. They may now consider it profitable to expand service facilities even to setting up a separate shop for warranty work, as factories have been urging.

THIS WARRANTY CONCESSION is costly and probably will run factory costs up 40 to 50 per cent. The result will be tougher factory inspection policies and added pressure on dealers to do a thorough preparation job before delivery.

January Dates Set for Chicago Show

THE CHICAGO AUTOMOBILE SHOW FOR 1957 will be held January 5 through 13 at the International Amphitheatre. Announcement was made by C. J. McCorkle, president of the sponsoring Chicago Automobile Trade Association.

HE STATED THAT DIRECTORS OF THE CATA have voted unanimously to present the big automotive exposition on the early January dates for the third year. The past two shows, each held during that period, resulted in two successive attendance records.

Sales Still Soar But Big Backlog Exists

NEW CAR SALES STARTED CLIMBING in February and latest information indicates that the uptrend is continuing. Sales during the first quarter may well be the second highest on record.

HOWEVER, THERE IS A TREMENDOUS BACKLOG of field stocks to be worked off which is estimated at slightly more than 800,000 at the end of February. This points to slower production rates for some weeks.

Higher Sales Ratio in Lower Priced Lines

THE POSTWAR TREND TOWARD PREFERENCE for higher priced models is being reversed in the current tight new car market. Car companies report a higher ratio of sales in lower priced lines than formerly.

MERCURY'S EXPANSION OF ITS LOWEST priced Medalist line also emphasizes the trend of medium priced makes to reach down into the next price class to counteract top lines of the volume Big Three lines invading the middle priced field.

SOMETHING SIMILAR MAY BE IN THE WORKS in Chrysler divisions, other than Plymouth, to fill the gap left when Plymouth is split off as a separate sales unit.

Now They're Running Too Cool

AUTOMOTIVE ENGINEERS APPARENTLY are facing a rather peculiar problem with some of the new V-8 engines in regard to cooling. Where it once was a problem of getting enough cooling, it now appears that designs provide over-cooling.

THIS PROBLEM RESULTS in complaints about slow warm-up and inefficient heater operation in cold weather. There reportedly is some consideration of cutting down the cooling capacity more in line with the efficiency of the low friction engines.

F.I. Systems, Lighter Parts Due Before Turbines

HIGHER COMPRESSION RATIOS, fuel injection systems, and much broader use of lightweight engine parts will come in automobile engines before the gas turbine is adopted, according to E. N. Cole, chief engineer of Chevrolet.

HE SAYS ALUMINUM NOT ONLY IS LIGHT in weight and easily anodized to give beautiful colors, but also can be formed into intricate die castings and forgings not now possible with iron or steel.

AM's New V-8 Is Expandable

NASH AND HUDSON WILL CALL the upcoming new V-8 models in their lines the Ambassador Special and the Hornet Special. The Statesman and Wasp names will be retained for the present, but only for the 6-cylinder lines.

IT COULD BE THE FIRST MOVE toward simplifying the line to two names - Hornet and Ambassador for Hudson and Nash. The American Motors V-8 is designed to allow for increases in displacement and will be expanded to go into the large Hornet and Ambassador lines later.

New Paints Require New Procedure

AUTOMOBILE PAINT SHOPS SHOULD CHECK carefully on proper procedures when using the new types of hard finish paint now being used on some cars. Undercoating is particularly important and safest procedure is to strip off the old finish down to the metal and use an approved undercoater.

IN NO INSTANCE SHOULD THE NEW LACQUERS be used over an old lacquer finish. As more new cars start to adopt the new lacquers it becomes important for repair shops to have adequate procedures for handling repainting.

Washington Wireby Ray M. Stroupe



Dealers '55 Sales 1/3 Above '54

AUTOMOBILE DEALERS GET HIGH MARKS in the U. S. Commerce Department books for the fine selling job they did last year. Adding up final figures for 1955, the department notes that dealers boosted sales one-third above the 1954 total to a new record of 7.4 million.

GENERAL RETAIL SALES OF ALL KINDS amounted to \$185 billion, 9 per cent ahead of 1954. New marketing peaks were reached in every major retailing line.

Warning! Beware of Phony Tax Agents

FALSE TAX AGENTS ARE MAKING THE ROUNDS in a number of areas, the Internal Revenue Service warns. They may ask to see company records or demand cash payment for taxes they say are due.

AS A SAFETY MEASURE, you should require anyone who says he is a revenue agent to identify himself. IRS also advises that it's wiser to pay your taxes by check, instead of in cash.

Franchise "Ground Rules" Asked

PRESIDENT CARL FRIBLEY of the National Automobile Dealers Association, tells Congress that the government should stay out of the franchise-writing business. This doesn't mean the dealers are slowing their drive for a fair franchise law.

THEY ASK FOR "GROUND RULES" to govern both dealers and factories. Without such rules, NADA reasons, a shift in top leadership of a producing firm might mean a change for the worse in contracts.

Senate to Push for Improved Franchise Terms

YOU CAN EXPECT THE SENATE to put most of its effort behind a bill to improve franchise terms for car dealers and halt bootlegging. Manufacturers are going ahead with their own plans to curb phantom freight.

THE TOUGH PROBLEM OF DEALER CONTRACTS may be solved, thinks Sen. Monroney, D., Okla., by a proposal he has drafted. Its terms are more basic than the new General Motors plan for better contracts.

Eisenhower Backs Regional Safety Meetings

WORKABLE MEANS STILL MUST BE FOUND to reduce the national highway death toll, says President Eisenhower. He backs the idea of a series of regional conferences to build local support for road safety measures.

THE PRESIDENT HAS ASKED ALL STATE GOVERNORS to cooperate with the Committee for Traffic Safety in making the conferences successful. Chairman of the committee is Harlow Curtice, General Motors president.

NADA Urges Caution on New SS Bill

CONGRESS SHOULD NOT HURRY into any changes in the federal Social Security law, counsels the National Automobile Dealers Association. A bill in the Senate would raise the Social Security tax now and increase benefit payments.

ITS MEMBERS, NADA EMPHASIZES, have some 660,000 employees and would be seriously affected by any tax-raising plan. NADA holds that experts should study this bill at length before it is approved.

Huge Highway Program from Huge Excises

HIGHER EXCISE TAXES to finance the expected huge highway improvement program are certain to come, but it is indefinite yet as to what items will be affected.

IT ALREADY IS ALMOST SURE that taxes on gasoline, diesel fuel, tires, and trucks, buses and trailers will be raised, plus a new levy on camelback used in retreading.

TREASURY SECRETARY HUMPHREY questions that these levies will be adequate and has suggested that taxes also be increased on lubricating oil, parts, and accessories.

HE ALSO ADVOCATES A \$1 REGISTRATION FEE for each 1000 lb of vehicle weight. His proposals, however, met a dim reception.

Newly Patented Car—"Chemobile"

WHEN THE SERVICE SPECIALIST wants to get at the engine of one recently patented car he'll have to look under the body. Designer of the Chemobile, as the car is called, has left air space between the engine and body so that heat will be blown away.

Report to Our Readers



West Coast Eye Witness

BY the thousands, the automotive trade turned out to see the bigness of our industry. The setting was the Pacific Automotive Show in San Francisco, last month. While total attendance wasn't available at press time, we'd venture that all records were broken.

Every major manufacturer from Coast to Coast was there in force. Jobbers, more than 750 of them sponsored the show, turned to from eleven Western states, Alaska, Hawaii, Canada and Mexico. When the doors swung open for the retail trade, dealers, service managers, owners and operators of independent garages and service stations came in abundant droves.

PM in San Diego County

ON the heels of our junket to the West comes a report on *preventive maintenance* in San Diego county. PM is a gold mine for both vehicle owner and the man who provides the service, says the report.

For the owner, savings can be as much as \$78 for each 10,000 miles of driving. And, for the man who does the work it can mean more business and plus profits. That figgers, because it brings the car or truck owner into your place of business at regular intervals.

The report from the San Diego County Auditor shows that in 1953 the cost of operating the county's fleet of cars was 6.18 cents per mile, before preventive maintenance. A PM program was instituted. It called for 1500-mile greasing, oil change and inspection to correct minor defects before they became major problems. Emphasis was on "start-and-stop" parts.

In fiscal 1954, Jean L. Vincenz, Director, Department of Public Works launched the PM program. In that year and the year following the per mile costs were cut to 5.4 cents, a saving in the two years of more than \$60,000.

The 1500-mile lubrication and oil change schedule is rigidly enforced, with mechanics making check on front wheel assemblies, brakes,

wheel alignment and other vital parts while the vehicle is on the lift.

Most cars are given a thorough inspection and maintenance servicing every 5,000 miles. Exception is cars operated by "the law." These cars get the full treatment every 1,000 miles because they must be in "emergency-alert" condition at all times.

We offer this report with the hope that it may give you an idea! Translate this into your own cash register. Line up your customers and prospects for regular preventive maintenance. Show them how they can save \$6.50 a month or more. Make it a "must" that they follow your—The Automotive Specialist's—orders.

Mr. Fibley on Ground Rules

CARL FRIBLEY, newly elected president of NADA, in his statement submitted to the Automobile Marketing Practices Subcommittee of the Senate last month, said, in part:

"We do not want government regulations. . . . We do not want the government to get into the franchise-writing business. What we do need and must have are simple ground rules to protect the public. We want both factories and dealers to be governed by the same set of rules. . . ."

"We in NADA will continue to stress the need for ethics in our own businesses; our own efforts to clean up deceptive and mis-leading advertising are already in the records and we shall continue them. We want above all to be competitive because this business is a competitive business and this is the one quality that has made it grow from nothing to one-seventh of our national economy in a little over 50 years."

Good for you, Mr. President.

Faithfully yours,

Frank P. Tighe

EDITOR



NewsScene—

POSSIBLY dreaming of a ride in the streamlined "car of the future" at her fingertips is model Mary Linden, shown with a three-eighths-scale model of one of Ford Motor Company's "idea" cars that was exhibited at the Detroit Automobile Show last month. The car is called the X-1000 and was part of a colorful display showing how automobiles are designed in Ford's styling center located in Dearborn, Mich.



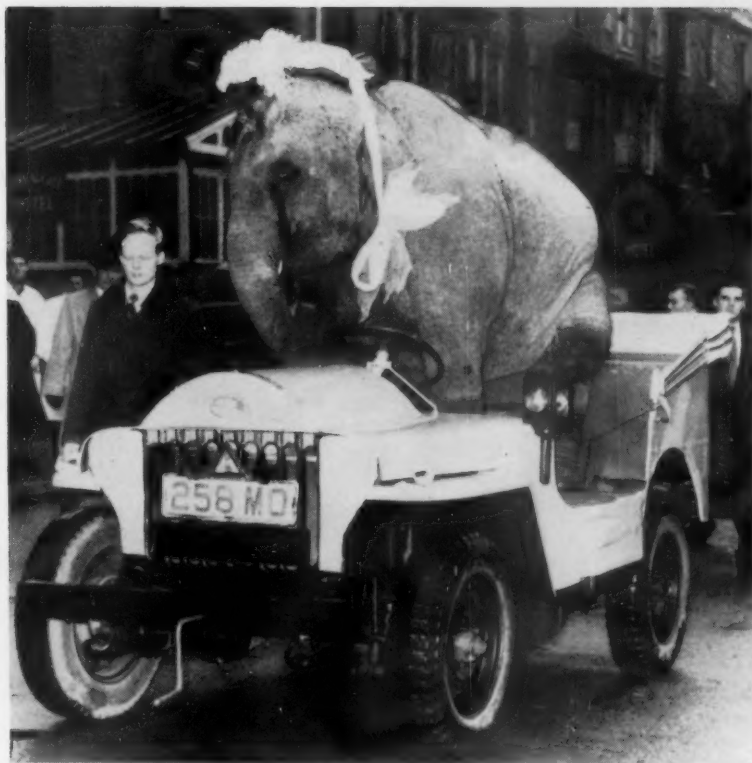
CAT EYES for pedestrians can result from the use of this novel idea of mounting reflecting glass in the heel area of shoes. The cat-eyes reflect brightly light falling on them. The mounting of the "eyes" is being done by a German shoe factory. Tests have shown that motorists can see the reflection of their headlights in the cat-eyes worn by pedestrians after dark.



"MISS FROZEN FOODS of 1956," Roxy Theater skating star Barbara Hunt, is pictured (center in photo at left) inside a new Fruehauf refrigerated trailer insulated with Hasko-Struct "sandwich" panel. Barbara's ladies-in-waiting are Virginia Morrison (left) and Eleanor Mouselle (right), both skaters with the Roxy Theater Ensemble. "PIE" on the sides of the trailer stands for Pacific Intermountain Express.



▲
ACCORDIONIST Dick Contino recently thought up a new traffic safety slogan and offered it to the Greater Los Angeles Safety Council. Not until after the council's president, J. T. Blalock, visited Contino to accept the slogan and pose for a picture was it discovered that somebody had misspelled "accordion."



◀
ELEPHANT ON THE MOVE: Becapped in his Sunday best, Kam the elephant is pictured riding through the streets of London, England. Generally, on-lookers gape in amazement at the sight of Kam calmly enjoying the trip in his special car.

Widespread Interest Leads



NEW ENGLAND: George Kaufman (standing), partner of Kaufman's Calso Service in Bridgeport, Conn., was awarded the September cover painting. Making the presentation were Russell W. Case, Jr. (left), Publisher of Motor Age, and Kip H. Howe (right), Motor Age Regional Manager (New York office).

Cover Contest Rules

The contest is opened to all subscribers of MOTOR AGE excepting employees of the Chilton Company, publishers of this magazine. The award each month is the artist's original cover painting of that particular issue of MOTOR AGE.

There is no entry fee whatsoever. To enter either the January, February, or March contests simply write a letter on your business stationery telling the editors of MOTOR AGE what you liked best about that particular issue. Sign your name and title. You can enter all three of these contests but each contest needs a separate letter.

All letters become the property of the Chilton Company and none can be returned. Deadline for all three contests—Jan., Feb., and Mar.—will be Monday, April 30, 1956.

Winners of any of the 1955 Cover Contests are eligible to enter any of the 1956 Cover Contests.

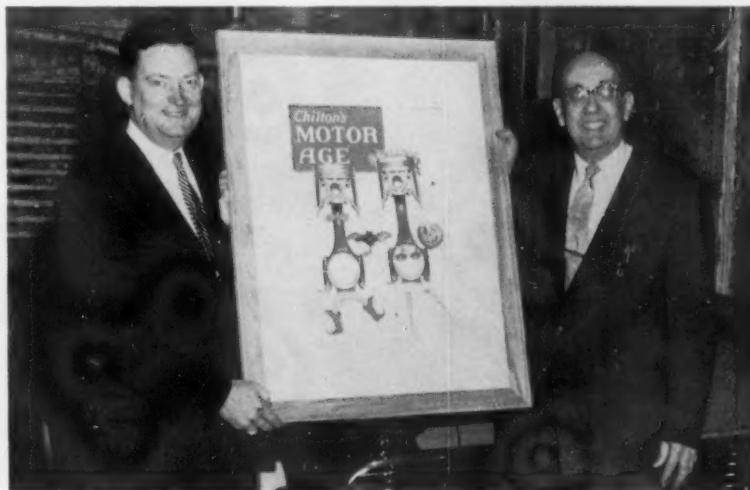
MOTOR AGE editors have borrowed for the moment a woman's famed prerogative of changing her mind. As originally announced several months ago, the monthly Cover Contests were to end with the cover award for the December, 1955, issue. But the many, many letters received and the widespread interest in the Cover Contests have led the editors to "change their minds in this matter" and to reopen the Cover Contest for the monthly cover paintings of MOTOR AGE during 1956.

Hence, to subscribers of this issue three contests are available: the January, February, and March cover paintings. You can enter one or all three but each requires a separate letter telling in your own words what you liked best about that particular issue of MOTOR AGE.

As the rules—located elsewhere on this page—point out, deadline for letters in these three contests is Monday, April 30, 1956.

The January cover painting, you will remember, featured the "Plant-

(Continued on next page)



MIDDLE ATLANTIC: Albert E. Dailey (right), Service Manager for Foss Hughes Co.,—Phila. Ford dealer—accepts presentation of October cover painting from the Technical Editor of Motor Age, John K. Montgomery (left above).

to '56 Contest Re-Opening

in' Time" theme and showed a handsome Automotive Service Specialist striding like Paul Bunyan over busily traveled highways and wielding a green thumb to "make sales grow."

The February cover presented a sunburnt prospector panning for gold. His monetary returns were coming not from nuggets in his panning equipment but from servicing today's automobiles.

Previous Contest Winners

Located on these pages are photographs taken at the cover presentations of the artists' original painting to the contest winners of last September, October, and November. The full color painting measured 16½ inches x 22 inches and was mounted in an attractive frame.

September's award went to George Kaufman, partner in Kaufman's Calso Service at 850 Madison Ave. in Bridgeport, Conn. October's cover presentation was made to Albert E. Dailey, Service Manager for Foss Hughes Co. (Ford dealership) at 21 & Market Sts., Phila., Pa.

November's cover painting was won by Durwood Groom, Shop Manager for Groom Brothers Home & Auto Supply at 5604 Military Parkway in Dallas, Texas. Photograph of the presentation of the cover award of the December 1955, contest winner will appear next month in MOTOR AGE.

Ideas Are Important

Remember, in entering any of the Cover Contests writing style or grammar are not prime considerations. It is your ideas, your thoughts and reasons on what you like best in that particular issue of MOTOR AGE that counts.

Write and send in your letter now. It may be a winner!



SOUTHWEST: Gordon Brauniger, Motor Age Regional Manager (Dallas, Texas office) presents Nov. award to Durwood Groom (right) of Groom Bros.

1955 RETAIL CAR SALES BY PRICE GROUPS*

Number of Cars

Price Group	December				Twelve Months			
	1955		1954		1955		1954	
	Units†	% of Total	Units†	% of Total	Units†	% of Total	Units†	% of Total
Under \$2,000	110,793	17.72	434,034	86.41	3,392,525	47.31	3,353,568	60.47
\$2,000 to \$2,500	351,895	56.29	138,912	21.26	2,738,428	38.19	1,406,734	25.37
\$2,500 to \$3,500	135,585	21.09	63,097	9.66	823,014	11.48	580,076	10.46
Over \$3,500	26,914	4.30	17,416	2.67	216,587	3.02	205,283	3.70
Total	625,187	100.00	653,459	100.00	7,170,554	100.00	5,545,761	100.00

Dollar Volume of Sales

Price Group	December				Twelve Months			
	1955		1954		1955		1954	
	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total
Under \$2,000	\$ 214,440,914	14.74	\$ 324,764,041	58.91	\$ 6,444,944,567	40.57	\$ 6,172,487,368	52.32
\$2,000 to \$2,500	751,117,341	51.62	324,719,277	23.20	6,239,448,805	39.27	3,233,496,917	27.41
\$2,500 to \$3,500	377,273,732	25.93	180,035,418	12.88	2,320,724,016	14.61	1,594,123,461	13.51
Over \$3,500	112,204,541	7.71	70,352,053	5.03	882,544,448	5.55	797,241,327	6.76
Total	\$1,455,038,528	100.00	\$1,399,870,789	100.00	\$15,887,661,836	100.00	\$11,797,349,073	100.00

*—Calculated on basis of new car registrations, as reported by R. L. Polk & Co., in conjunction with advertised delivered price at factory of four door sedan or equivalent model. Does not include transportation charges or extra equipment.
†—New registrations of American made cars only. Does not include imported foreign cars.



By FRANK H. YARNALL

Immediate Past President, National Automobile
Dealers Assn. & 1955 NADA Convention Chairman

It's Still

A Great Industry

IT was just a year ago, at the close of our convention in Chicago, that I was presented to you as the incoming President. Had I known at that time what I now know, a result of this year's experience, I would have been even more reticent to accept the responsibility than I was. It has been a year of many problems—one of great frustration—and of great encouragement.

The opportunity that has been mine, to work with such wonderful people as comprise our Board and our Staff, makes up fully for the hours and the days away from home and business. And

I have been privileged to become better acquainted with many of the leaders of all of our manufacturers. . . .

It has been a rich and rewarding experience which I shall cherish for the remainder of my life.

I said that it has been a frustrating year. Dealer dissatisfaction showed itself to a greater degree than ever before and this resulted from many things, not the least of these being the lack of adequate profit—and the changing methods or practices of merchandising. . . .



CARL E. FRIBLEY (above) of Norwich, N. Y., is the newly elected president of NADA. Other officers for 1956 are: Frederick M. Sutter, (Columbus, Ind.), first vice president; Birkett L. Williams (Cleveland, Ohio), secretary; and Allan C. Mims (Rocky Mount, N. C.), was chosen as the treasurer.

**The thought-provoking address
—in condensed form—made by
NADA's outgoing president at
the recent Annual Convention**

For many years NADA has believed that many of our problems result or stem from the dealer franchise or contract, and for these many years we have worked for a more equitable arrangement between manufacturer and dealer. We have believed that this was in the interest of both the manufacturer and the dealer, and certainly in the public interest.

We have been—and are now—opposed to government control of our business and have endeavored to solve our problems through the conference table method. We have declared that

NADA would seek help from government only when there was no other avenue. . . .

There are many indications that a new and improved contractual relationship will exist before too many months have passed in this year. American Motors, through their Board Chairman and President, Mr. George Romney, have very recently announced to their dealers a new eight-point program that certainly is a major step that will help to clear up problems between their dealers and themselves. And still another major manufacturer has scheduled a meeting for February [1956] to do likewise. And don't take too lightly the extension of the one-year franchise to five years. This was certainly welcomed by many dealers. . . .

Not the Whole Cure

While an equitable contract will do much for our dealers, it can by no means be an instrument which will cure many of the problems of the day.

The real cure lies only in the hearts of men.

During the past couple of years things have been done which have caused the public to lose confidence in the automobile industry. The greatest amount of damage has been done by misleading, unethical, and in some cases, false advertising. . . .

Public confidence in the automobile industry must be restored and this can be done only if there is a return to the Quality Dealer type of operation. A quality dealer must have more than adequate capital and adequate facilities. He must be morally sound, and unwilling to resort to some of the practices which have brought disrepute to a great segment of a great industry.

To return to a Quality Dealer Program will require the concentrated and continuing effort of both NADA and the manufacturers, with help from state and local associations—and possibly help from government. . . .

There are some who feel that volume would suffer if some of the bad practices were abolished. I do not agree with this at all. Volume and bad practice need not go hand in hand.

Volume selling is a part of today's pattern and certainly no one can disagree with the philosophy of volume sales—provided we have good management. Volume sales without good management can only lead to bad practice and chaos. Volume selling is certainly compatible with the Quality Dealer program—and both are in the public interest. . . .

The great majority of dealers in the country want to advertise and deal ethically—in a Quality Dealer manner—and want to produce the largest possible volume of sales. We have an obligation

(Continued on page 80)



Quick Service on the '56 Plymouth V-8

After reading this Quick Service article
why not test your know-how on the subject
by doing the Shop Clinic Quiz on page 65

ON the new Plymouth V-8 equipped with power steering, the power steering unit and lines may be drained by disconnecting the high pressure hose (the small one) at the steering housing. Make sure the end of the hose is placed in a container to catch the fluid. It is a good idea to have someone hold the hose while you start the engine. Let engine idle until all the fluid is pumped from the system.

When air bubbles begin to show up to any great extent in the fluid, turn off the engine. Connect the hose again and refill with fluid slightly above normal. Use type "A" transmission fluid.

Now start the engine once more and let run for a few minutes to circulate the fluid throughout the system. With engine idling, turn steering wheel back and forth a few times from extreme right to extreme left. This will force any remaining air to leave the system. Check the fluid level and add more fluid if needed to cover the filter. The system has a capacity of three and one-half pints.

If the distributor drive shaft and gear was removed for any reason the engine should be re-timed. Rotate the crankshaft until the No. 1



Special tool in position for adjusting valve clearance. This gauge eliminates need for a feeler gauge and insures hair-line accuracy.

At near right: pressing ice pick through red boot on No. 1 cylinder to attach timing light. Far right: view from left side of engine of ignition timing degree marks.



piston is at top dead center—on compression stroke.

The pointer should be at dead center mark on the crankshaft pulley. Coat the shaft of the drive gear with lubricant and insert it into the bushing. Spiral the shaft into place so that the slot in the shaft indexes with the oil pump shaft.

The slot at the gear end of the distributor shaft should point to the first intake manifold bolt on the left side of the engine. Turn the distributor rotor to number one spark plug wire. Turn rotor counterclockwise until points just separate. Position oil seal ring in place and install distributor. Make sure shaft engages in lower drive shaft and vacuum unit points to right cylinder bank. Install clamp and check timing.

Coil Testing

When checking the coil on the '56 Plymouth V-8 for external leaks and any arcing, two tests are recommended. One test should be made when the coil is cool and the other after the coil has warmed up. Test the coil and the ballast resistor separately. The ballast resistor is connected in series with the primary winding.

In the operation of checking ignition timing with a light: Place a chalk mark on the vibration damper or fan pulley at the specified number of degrees advance. Then attach timing light to No. 1 spark plug wire at the distributor cap (No. 1 wire has a red-tipped boot). Start the engine and allow to idle. Light should flash the instant the chalk mark is opposite the pointer on the chain cover.

Vacuum Advance Test on Bench

Remove vacuum from vacuum control unit and operate distributor at about 800 rpm until a steady reading is obtained. Apply the amount of vacuum required for the full specific advance. If the advance does not conform with

(Continued on page 84)

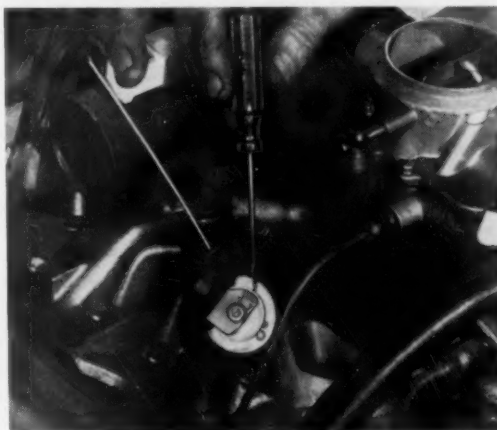


Removing pipe plug to attach vacuum gauge fitting.



Above: compression gauge placed in proper position.

Below: choke (free from well) ready for adjustment.



The Right "Approach" To One

Easy access to your place of business invites customer cars to drive right in



TODAY: The thriving location is bounded by two concrete drives; one is 400 feet long, the other 300.

ACCESSIBILITY for customers to drive in and out quickly and without hazard is always a favorable factor in any One Stop Service location. Wide and inviting approach aprons encourage passing motorists to turn their wheels towards your place of business.

An excellent example of the use of wide approach aprons may be seen by studying the layout and operation of the Fischer Automotive Company. Located at the apex of the triangle formed by two extremely busy thoroughfares in North Philadelphia, Fischer's is bounded on the one side by a 400-foot-long concrete drive and on the other, by a drive of 300 feet in length. The drives average about forty feet in

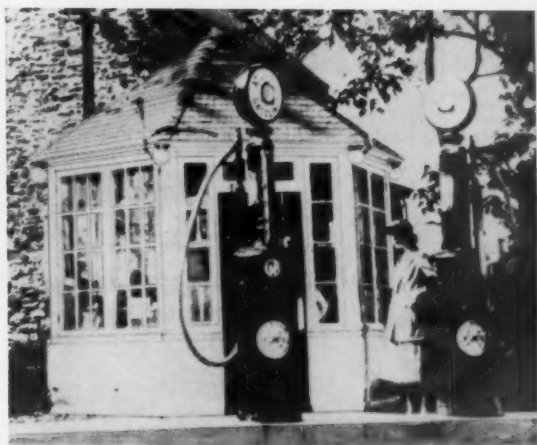
width from the building to curb line.

Midway in each drive is a pump island for dispensing gasoline and oil. One island has three pumps, the other has two. On one of the street sides of the large building that houses Fischer's shops and equipment are three large overhead doors. These doors permit easy access to the service shop. The doors were installed with an eye for accommodating large trucks as well as passenger cars. The service shop area is 40 feet x 80 feet, while the overall floor space of the building is 6900 sq. ft. Near the rear of this service shop area is another large overhead door that provides access to and from the two giant parking areas in the rear.

This high volume excellent service organiza-

Stop Service

By George W. Reed



YESTERDAY: One of the early buildings of Fischer's.

tion is the outcome of 35 years of progressive planning, thinking, and action on the part of the Fischer Brothers: Ellwood, Ben, Bud. In recent years Ellwood's son Bob has joined them.

Progressive Planning

In 1920, when the business first started, it consisted entirely of a small booth like station, and 2 gas pumps. Some years later, because of the increase in business, the homestead (immediately adjacent to the gas station) was given up as a residence, and turned into a shop. This was a difficult decision for the Fischer Brothers to make, because the house had real historical significance as it is claimed "George Washington slept there." Thus in 1932 the



Meet the 4 Fischers: Bob, Bud, Ellwood, and Ben.

house and gas station were demolished. In its place was constructed the present modern building.

As the result of progressive thinking and planning in 1932, the design of the building has been able to accommodate the ever growing business volume throughout the years, and it was only in 1954 that it became necessary to expand the building area—some 2500 square feet of shop space was added.

On the eastern street side, located midway in the building, are 3 overhead doors, that open in to the lubrication lifts, and also to the general shop area. On the same side of the building, almost at the end, is another overhead door, giving customers entry to the front end department. It is here all front end, alignment,

(Continued on page 92)

Well-equipped work bays are kept neat and orderly.

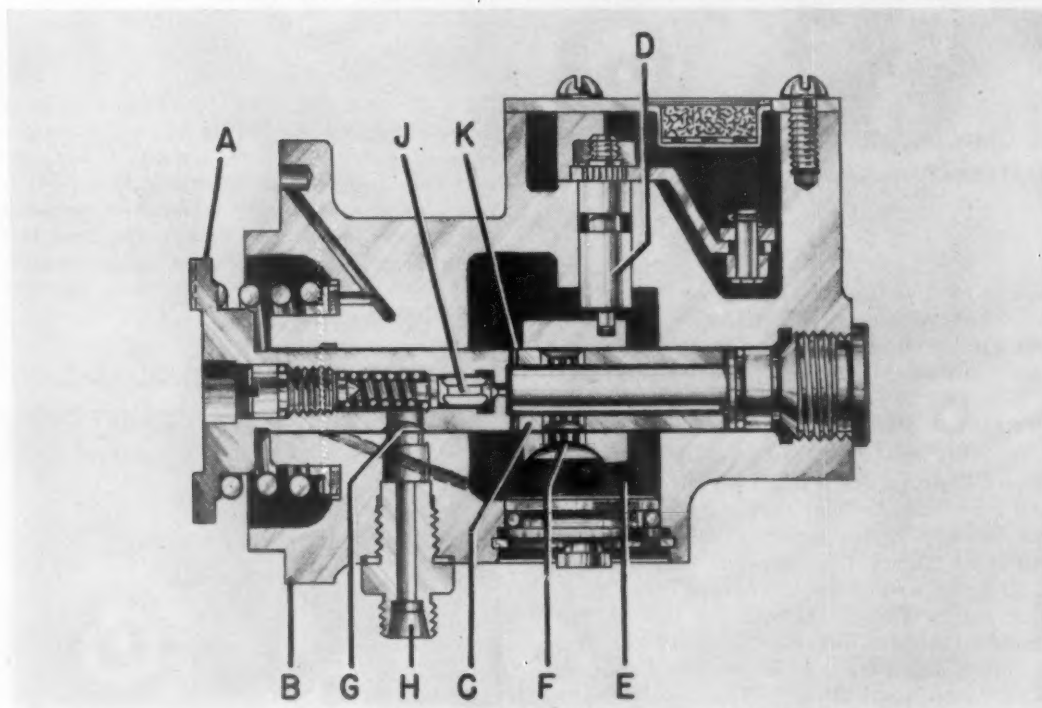


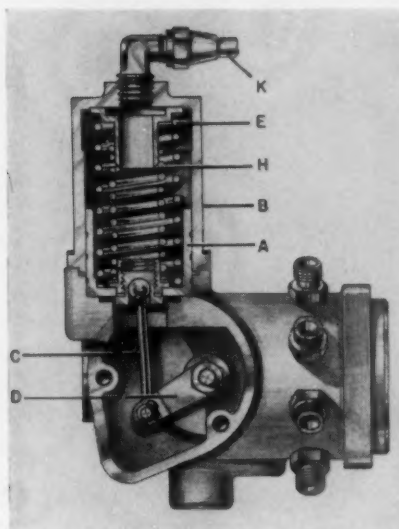
Part II

Technical Details of Fuel Injection

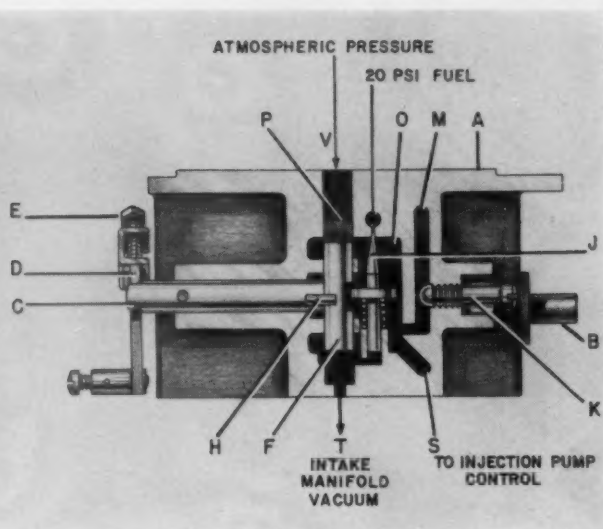
Step-by-Step description of the functioning of this
system that has caused widespread industry interest

INJECTION PUMP: description of components as identified by letters appear in text





Injection Pump Control



Mixture Controls

FURTHER details of its fuel injection system have been released by American Bosch Arma Corporation. Performance of a Bosch installation made by du Pont was discussed in last month's issue of *MOTOR AGE*. The system is not an adaptation of an existing Diesel system, but a new type.

The system consists of a small fuel metering and injection pump, mixture control, electrically-driven fuel pump, filter, lines and nozzles.

The injection pump is a simplified single-plunger type with the plunger reciprocated and rotated by an integral face cam at $\frac{1}{2}$ engine speed, to pump and distribute the fuel. Position of a sleeve on the plunger controls the amount of fuel injected. A control mechanism receives a control pressure from the mixture control, and translates it to the metering sleeve.

Fuel cut-off during deceleration can be automatic. Not shown is one method in which an auxiliary piston is used within the control piston of the injection pump control. Biased by a low-rate spring, the piston moves upward within the control piston on deceleration to move the metering lever to the cut-off position.

The mixture control is the manifold-pressure type, linked to the accelerator pedal. A chamber in the control feeds a modified manifold pressure to the injection pump body during cold starting and idling. Nozzles are of the poppet type, located directly above the valve head.

The fuel pump maintains pressures well over the surface vapor pressure of gasoline. The

filter is said to trap particles down to two microns in size, and have a service life of about 30,000 miles.

Advantages claimed for this system include 10 per cent increase in available peak horsepower of a standard engine (one not specifically designed for fuel injection). Peak torque occurs about 500 rpm lower, and the curve flattens. Throttle response is faster. Economy is improved five to 15 per cent at road load. Higher vapor pressure fuels can be used, and there is said to be greater freedom from icing and vapor lock.

Gasoline Injection Pump

Sectional view of the injection pump proper shows (A) the single unit face-cam and plunger which is reciprocated and rotated by the engine's drive mechanism at one half engine speed. A metering sleeve (C) fitted to the plunger is adjusted for fuel metering by eccentric shaft (D) linked to the pump control.

In operation, supply fuel enters sump (E) and during the suction stroke fills the internal volume of the plunger through radial ports (F) in the plunger and sleeve. As the plunger turns, the fill ports are covered at the end of the suction stroke and distributing port (G) registers with one of the outlets (H). At the start of the pumping stroke, fuel trapped in the internal volume of the plunger is forced out through spill ports (K) to sump (E) for that part of the stroke determined by the metering sleeve position. As

(Continued on page 102)



Kilborn's showroom and waiting lounge is reminiscent of a hotel lobby.

Feminine Customers Build Buzz's Business

This California businessman has found that feminine drivers make up a surprisingly

CATERING to women customers in automobile servicing facilities pays big dividends, according to Buzz Kilborn, owner of the prosperous Buzz Kilborn Tire, Wheel and Brake Service in San Rafael, California.

When he moved into his new business premises last July he had anticipated a business increase of about 25 per cent in the first two months. The actual 65 per cent increase was a pleasant surprise. And virtually all of it was passenger vehicle trade.

How do you go about making an automobile

servicing establishment particularly attractive to women? It took Buzz a number of years travelling through the western states during various trips to get the answers. Eventually he came up with the ideas that he has incorporated in his business.

When a feminine customer drives into the service reception area, she is met by the service manager, who finds out what has to be done to the vehicle. The customer is escorted into an attractive panelled lounge in front of the building, where she can wait if the job



Exterior view of Kilborn's 11,000 sq ft plant which was completed in July. It has 28,000 square feet in the yard.



One of the two wheel aligning pits that are kept busy at all times. The racks can accommodate most vehicles.

sizeable portion of a shop's market

isn't going to take long to complete. There are magazines, books for the children, and convenient wash rooms—even a movie projector for showing product movies to entertain the customers.

The comfortable chairs and decorative plants are reminiscent of a hotel lobby, rather than an automobile repair establishment. If the customers wish to go down town to shop during their wait, Kilborn provides the transportation and makes arrangements to pick them up again.

There is no high pressure sales organization

trying to "over-push" extra sales, regardless of whether the customer really needs the products. Kilborn advertises that he offers \$100 cash to any customer who has been sold anything that he did not really need.

Meanwhile, the car is run onto one of five centerposts, where a complete diagnosis is made of the trouble, particularly with an eye to the safety of the customer. Kilborn feels that centerpost hoist is an advantage to the serviceman, as the car is put to a working height where a man can do the work comfortably and more efficiently. It saves a great deal of time, as no jacks have to be used.

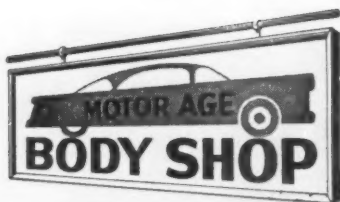
Before work is started, the customer is told about any parts that must be replaced and is invited to inspect the defective part before it is removed from the vehicle.

If some vital part affecting the driver's safety is defective, Kilborn points this out. "If the customer doesn't want the job done properly in the interest of his own safety, we advise him to take it somewhere else."

Adjoining the brake service area with hoists are two complete modern wheel aligning pits, equipped with heavy duty aligning racks capable of handling any vehicle from an Austin to a Greyhound bus. For precision accuracy, light beam alignment equipment is used to assure maximum results.

Carefully separated from these service areas is the truck tire service department, which is actually all part and parcel of the same business. The segregation of the operations is achieved through means of careful partition-

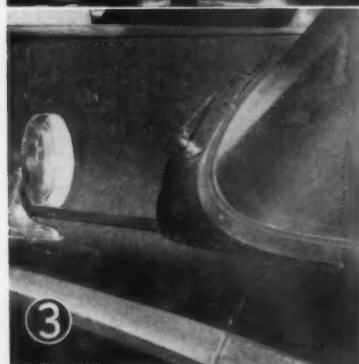
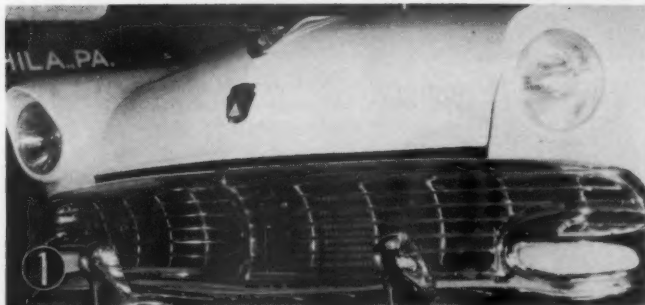
(Continued on page 112)



Aligning Hoods

Usually a simple procedure,

by R. C. Rittenhouse
Associate Editor



- 1 Hood too high at front.
Adjust rubber bumpers.
- 2 When hood is shifted to
one side, adjust hinges.
- 3 Rear of hood too high.
Hinge must be dropped.
- 4 Too much space at rear.
Adjust hinge screws.

IMPROPER adjustment of the hood not only impairs the easy operation of this part but ruins the appearance of the entire car. The improvement in the car's looks, after a good realignment job is done, will always make a customer happy. Happy customers keep coming back.

Hood hinge brackets and adjustable rubber bumpers under the front edge of the hood provide adjustments needed to remedy the majority of misalignment problems. A corresponding adjustment will usually be required at the locking plate assembly or the hood lock dowel when the bumpers or brackets are repositioned.

The bolts at each point of adjustment are set in elongated holes to permit any necessary movement in the aligning procedure. On Ford models, for instance, the entire hood locking plate assembly can be shifted backward, forward and from side to side along these bolt holes. Misalignment conditions illustrated elsewhere on these pages can generally be corrected by the procedures described below.

Hood Too High at Front

Both sides of the hood should be flush with the fenders. If it is found that one side is higher than the fender (at front), the adjustable rubber bumper on the high side must be shortened. To do this,

on Ford-Lincoln-Mercury

the job of realigning a hood can be troublesome if not done correctly

loosen the locknut and push the bumper up into the bracket until the hood height is equal all the way across when closed.

If both sides of the hood are too high at the front, shorten both rubber bumpers until the hood is flush with the fenders when closed. Then, tighten the lock nuts. Always check the lock dowel adjustment for proper locking action after either of these adjustments.

Hood Shifted to Side

In a case where the hood has shifted to one side at the front, loosen the hinge-to-hood adjusting screws on the side having excessive space. Severe cases might require the loosening of hinge screws on both sides. Now, by holding the front of the hood, shift it sideways until it is centered between the fenders. Tighten the hinge screws. Next, adjust the locking plate assembly according to the shift of the hood.

Rear of Hood Too High

To lower a hood that is high at the rear, loosen the hinge-to-cowl adjusting bolts. In Fords, two bolts are under the hood and two are reached from inside the car. After the bolts are loosened, lower the bracket until the hood surface is flush with the cowl when the hood is closed.

Too Much Space at Rear

Too much space between cowl and hood can be remedied by loosening the hinge-to-hood screws on both sides. The hood can now be moved toward the rear until alignment is proper. After the screws are tightened, readjust the locking plate.

Locking Plate

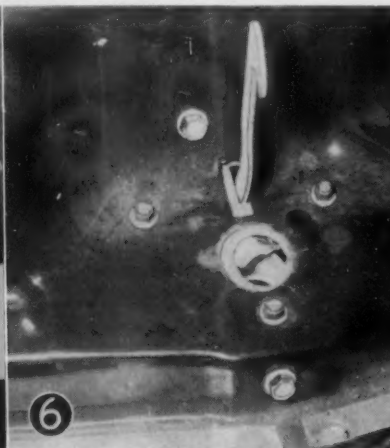
Any horizontal shift of the hood requires a corresponding change in the locking plate position. When loosened, the adjusting bolts permit

(Continued on page 114)

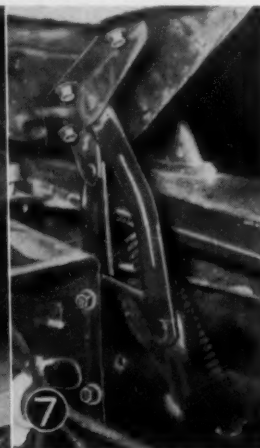
5 Rubber bumper (arrow) controls height. Dowel keeps hood tight.



6 Locking plate assembly adjusted by loosening three studs.



7 Hinge, showing adjusting bolts, top and bot.





BODY SHOP TIPS

are worth

\$7.50

If you've developed an idea that has helped you to do body and fender work or painting better or faster, it may be worth money. Jot down the idea and, if necessary, make a rough sketch. Sometimes a snapshot will help. Just make the description of your BODY SHOP TIP clear, and if it is used, you'll receive a check for \$7.50.

Trick to Lick Enlarged Screw Hole Problems

Here is a quick way to fasten garnish mouldings with enlarged screw holes. Instead of looking for oversized screws, I get one or two cotter pins, 1/16 inch or larger, and cut it in two close to the head. Then I spread the pin and clip it to the side of the hole. As many can be used as needed to make the screw draw tight. *Herb Hardter, 437 W. Lafayette Ave., Syracuse, New York.*

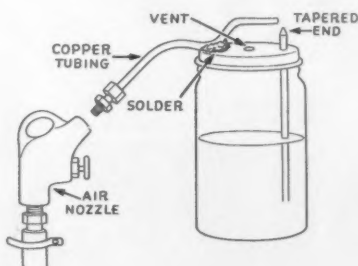
Coil Springs Absorb Paint Mixer Vibration

We experienced a lot of trouble keeping our paint conditioner secured to the concrete floor because the intense vibration constantly pulled the lag bolts loose. I used

two discarded front coil springs, from a car, and welded plates at the top and bottom of the coils. Then I secured the top plate to the paint conditioner and the bottom plate to the concrete floor. *G. D. Thomas, Box 393, Moorefield, West Virginia.*

Modifies Spray Gun to Speed Paint Operations

We use a large variety of colors in our body shop, many of them in small amounts. I have devised a modified spray gun that helps elim-



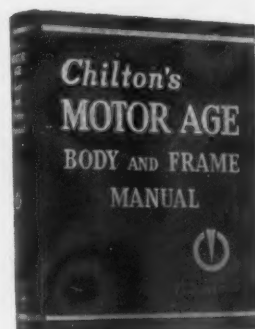
inate the need for constant, time consuming gun cleaning during color changes. Separate jars containing the various colors being used can be attached to this unit. Cleaning is thus limited to rinsing the vacuum tube in solvent. To make it (see illustration) I first closed the end of the air tube with solder and filed it square. Then I drilled a new hole in the center with a No. 60 drill. The smaller hole concentrates the air stream di-

rectly over the vacuum tube. The spray pattern is adjusted by bending the air tube slightly near the end. *Stanley Clark Service, Box 222, East Bradenton, Florida.*

CAUTION!!!

Oxygen Tank Used as Emergency Compressor

The shop tip under this headline in Body Shop Tips page 68, February issue was shown as an *emergency measure only!* This could be a fire hazard. There is an added danger because of the higher volatility of the mixture when using oxygen tanks as a source of air. It is our understanding that the risk is not presented by the atomizing process itself but that the real danger would be from a spark of an outside source.



Other valuable information of the type presented each month in The BODY SHOP is readily available in Chilton's Motor Age Body and Frame Manual.

Chilton's MOTOR AGE, MARCH, 1956

Up-To-Date Body Parts Price List

1956 Various Models

Buick

4641698—Front Door Shell, R—41, Manual	72.00
4673061—Front Door Shell, R—41, Electric	72.00
4664380—Rear Door Shell, R—41, Manual	72.00
4673071—Rear Door Shell, R—41, Electric	72.00
4154152—Front or Rear Outer Handle, R—41	3.75
4635108—Front or Rear Regulator Handle—41	1.75
4631206—Front or Rear Inner Handle—41	1.35
4633396—Front Window Regulator, R—41, Manual	6.25
4157316—Front Window Regulator, R—41, Electric	15.25
4631885—Front Door Lock Remote Control—41	1.25
4647502—Front Door W/strip, R—41	7.75
4647553—Rear Door W/strip—41	6.75
1169448—Front Door Side Mldg., R—41	3.75
1169490—Rear Door Side Mldg., R—41	3.25
4673712—Outer Quarter Panel, R—41	94.75
4667903—Outer Quarter Panel Extension, R—41	5.50
4672925—Wheelhouse Assy., R—41	32.25
4669935—Rear Quarter Lock Pillar, R—41	11.00
1170186—Deck Lid Handle, R 72, 73	1.50
4592884—Deck Lid Lock—41, 43, 63	4.50
4639049—Deck Lid W/strip—41, 43, 63	5.50
4673563—Cowl and Dash Assy.—41, 43, 63	85.00
4632070—Cowl Lower Side Panel, R—41, 43, 63	5.25
4671003—Rear Compartment Pan—41, 43, 63	61.50
4670792—Rear Seat Pan—52, 53, 72, 73	13.75

Cadillac

3630631—Hood Panel, Except 6237SDX, 67SX	86.00
3630659—Hood Panel, 6237-SDX, 67SX	86.00
1464401—Hood Lock Assy. ..	2.10
3630660—Hood Hinge and Reinforcement	12.50

Cadillac—continued

1464514—Hood Hinge Spring	1.15
3510523—Front Fender Assy., L—60S	73.50
1464483—Hood Name Plate or Crest	1.50
3510335—Fender Side Mldg., Exc. 6237SDX, 67SX	11.40
3510440—Front Fender Rear Baffle, L	1.65
3510596—Front Fender Lower Baffle, L	1.95
4654174—Roof Panel Assy.—60S	67.75
4625698—Roof Panel Assy.—6219	67.75
4620734—Roof Panel Front Insulator—60S, 6219	1.46
4624990—Roof Drip Mldg., R 60S, 6219	1.65
4650302—Roof Inner Side Rail, R—60S	5.65
4650304—Roof Outer Side Rail, R—60S	7.50
4244834—Deck Lid Assy.—60S	68.50
4244833—Deck Lid Assy.—6219	59.50
3510513—Deck Lid Handle—60S, 6219	6.80
4676026—Quarter Panel Assy., R—60S	119.50
4655194—Front Inner Quarter Panel, R—60S, 6219	4.25
4667668—Rear Fender, R—60S	62.00
4676030—Quarter Pan. Wheelhouse—60S	23.50
4669785—Rear Quarter Filler Panel—6219	5.95
4622351—Inner Lock Pillar Panel—60S, 6219	2.25

Chevrolet

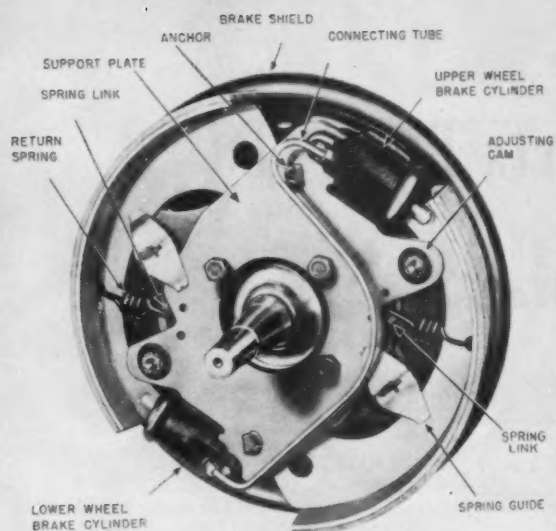
4672131—Rear Body Lock Pillar, R—4 dr.	9.50
4244819—Rear Outer Quarter Panel, R—4 dr.	39.75
4671235—Rear Inner Quarter Panel, R—4 dr.	34.75
4672131—Rear Body Outer Lock Pillar, R—4 dr.	9.50
4665308—Rear Dood Outer Panel, R—4 dr.	21.85
4666681—Lower Back Body Panel	5.75
3717878—Rear Bumper Stone Deflector	4.25
4244934—Rear Deck Lid, less Hardware	55.75

Chevrolet—continued

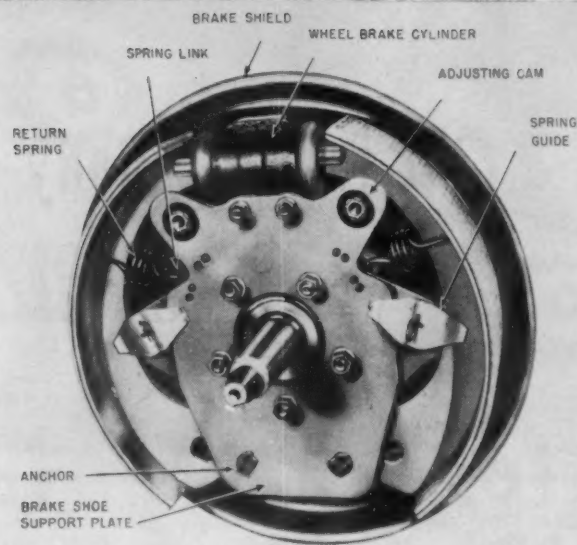
4667542—Center Body Pillar, R—4 dr.	25.75
4667027—Cowl Panel and Dash	110.50
4667012—Upper Cowl Panel ..	23.75
4210499—Front Door, less Hardware, R—4 dr.	58.50
4244821—Rear Door, less Hardware, R—4 dr.	58.50
4644751—Front Door Regulator, R—4 dr.	7.50
4244817—Rear Quarter Outer Panel Assy., R—4 dr.	92.75
4665810—Outer Rocker Panel, R—4 dr.	12.90
4661314—Quarter Outer Extension Panel, R	5.95
3722785—Front Fender, L ..	31.50
3720913—Front Fender Extension, L	3.25
3720582—Hood Top Panel ...	29.75
3721383—Hood Panel Brace, L ..	.45
3720909—Front Fender Skirt, L	9.25
3721003—Front Fender Skirt Extension, L	2.25
4678562—Instrument Panel ..	36.50
3722479—Front Fender Reinforcement, L .....	.65
987362—Front Fender Side Mldg., Unit	5.85

Chrysler

1651076—Front Door Shell, R—4 dr.	76.50
1620532—Front Door Repair Panel—4 dr.	21.60
1597560—Front Door Upper & Lower Hinge, R	3.75
1597171—Front Door Check Arm .....	.75
1650706—Front Door Lock, R ..	4.35
1548261—Front Door Remote Control, R	1.25
1650612—Front Door Outer Handle, R	4.85
1548285—Front Door Window Regulator, R	5.35
1604787—Elec., Window, Regulator, R*	18.65
1642435—Window Regulator Motor	18.50
1652046—Rear Quarter Panel, R—4 dr.	62.50
1620782—Rear Quarter Repair Panel, R—4 dr.	24.75
1621330—Quarter Panel Lower Mldg., R—C71	4.75
1620391—Rear Deck Lid—4 dr.	59.75



An exploded view of the front brake assembly.



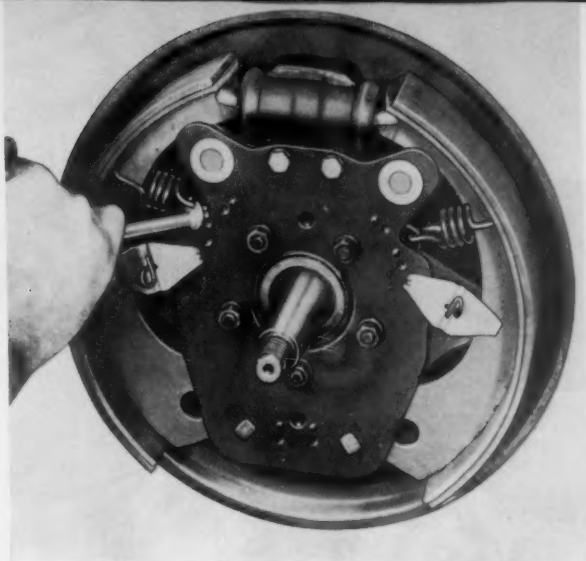
An exploded view of the rear brake assembly.

Plain Facts on **Servicing** **Center-Plane Brakes**

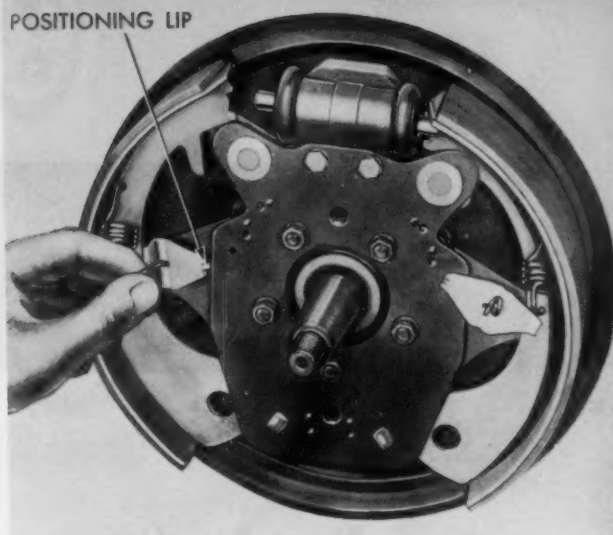
**A thorough description of adjustment and servicing
techniques on Chrysler Corporation's new type brake**

THIS new type brake which is being used on the 1956 Chrysler models is of the drum type, with floating shoes mounted between two plates located on the center plane of the lining. With the wheel cylinders mounted in the same plane, braking forces are transmitted equally across the width of the lining, giving uniform pressure against the drum at all times. The web of the shoe is calibrated in depth, so that when the brakes are applied, equal pressures are also applied to the brake drums along the entire length of the lining.

The shoes are held in position by the brake shoe return springs. One end of each spring is hooked in the loop of the return spring links. The other end engages the web of the shoe. An anchor pin in the support plate assembly holds the spring in a fixed position at one end. The other end of the link is positioned by the brake shoe adjusting cam, thereby providing a constant loaded spring length. Side rattle and twisting of the shoe is controlled by the spring guide, which maintains a constant spring pressure against the side of the web of the shoe holding



Removing the return spring of the brake shoe.



Removing the hold-down clip of the brake shoe.

the shoe against the support plate. The spring guide also helps to eliminate brake noise.

Two single wheel cylinders are used on each front wheel to actuate the front brakes. The location of the cylinders is such that when the brakes are applied, self-energizing action affects both front and rear shoes when the vehicle is traveling forward. The front shoe pivots in the bottom of the support plate and the rear shoes pivot at the top.

Disassembling Rear Brake Assemblies

Brake pedal should be blocked up to prevent downward movement. Back off on shoe adjusters before pulling brake drums. Remove drums then with special tool remove brake shoe return spring. Avoid using brake spring pliers to prevent damage to the brake lining. Next remove the brake shoe guide spring retainers by twisting the pin $\frac{1}{4}$ turn. Slide shoes off the support plate. With the brake shoes removed take out the two screws holding wheel cylinder to the support plate then remove the five nuts and lock washers and remove the brake shoe support plate.

Assembling Rear Brake

Assemble the wheel cylinder on brake shoe support plate leaving the screws finger tight. Place the brake shoe support assemble to the brake support. Then tighten support plate screws to 35 ft. lbs. and wheel cylinder screws to 20 ft. lbs. Connect hydraulic line to wheel cylinder.

Installing Brake Shoes

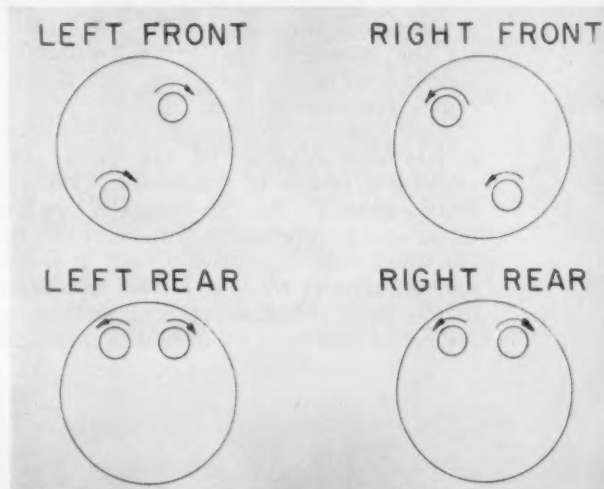
Position brake shoes in the support plate. Make sure wheel cylinder push rods properly engage toe end of shoes and that shoes are in alignment. In-

(Continued on page 98)



Removing the flange assembly from rear axle.

Arrows indicate brake adjustment directions.





Don't Overpay Your Taxes

Some possible tax-saving steps to bear in mind when preparing the tax return for your business operation

This article is based on information supplied by the American Institute of Accountants, the national professional organization of certified public accountants.

WHETHER the federal income tax rates are cut or not, you may be able to cut your own tax bill—honestly!

To do this you need to know the tax effect of various choices. Your choice of a method of handling a particular transaction can raise or lower your taxes, and sometimes you can save money by a legitimate shift of taxable income or deductions from one year to another. You are also allowed choices in your treatment of certain items in your tax return, such as depreciation and research costs.

Many businesses could reduce their tax burden if they were aware of the tax considerations affecting a variety of transactions. The most feasible means for many businesses to keep alert to tax saving opportunities is frequent consultation with a properly qualified advisor. If the firm retains a certified public accountant or a firm of CPA's, there should be tax consultations not just once a year when the filing date approaches,

but throughout the year as decisions are made which will affect the tax.

Choice of Depreciation Method

Certain tax-saving steps are still possible at tax-filing time. One of them is the proper choice of depreciation method. The first step is to determine the estimated useful life of any asset acquired during the tax year. Every businessman should have a copy of "Bulletin F," which contains tables of "average" useful lives. It is available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 30 cents. The tables provide a guide, but it is not necessary to follow them exactly.

The simplest method is straight-line depreciation. It may also be the best in your particular case. Just divide the cost (less what you expect to sell it or trade it in for when it is replaced) by the number of years of estimated useful life, and this is the amount to be deducted each year. In arriving at the original cost, don't forget to include freight and installation charges in addition to the price paid for the equipment.

The law now specifically permits several other methods of depreciation for new assets having a useful life of three years or more. One of them is known as the declining balance method. In the first year the depreciation rate is twice what it would be under the straight-line method. The next year the same rate is applied to the amount remaining to be depreciated. This process is repeated each year.

The result is that a greater proportion of the
(Continued on page 126)



... Every cold morning you could find Old MacDonald out front when Pop O'Neill opened his shop ...

Pop "Saves" A Customer

Too fearful of paying a fair price for a new battery from Pop, Old MacDonald learns the hard way what it's like to get stuck

OLD MacDonald had a Hudson, a 1953 Hudson. But it had a bum battery. He nursed it for 'most the winter; that is, he and Pop's boys did. Every cold morning you could find Old MacDonald out front when Pop O'Neill opened up his shop, standing there stamping his feet in the snow and holding the battery he had taken out for recharging. The scene got to be as regular as the man who changed to milk of magnesia.

"Mac, I told you that battery was shot," Pop O'Neill told him again and again. "You ought to buy a new one."

But the old man insisted that it was only three years old—"ought to be good for another winter yet—specially since I don't drive the Hudson much at night."

This morning, however, the battery wouldn't take a charge, and Pop reluctantly pronounced the death warrant. He could feel the electrolyte rise in the old man when he finished. "I ain't a'goin' ta buy a battery from you, Pop," Old MacDonald sputtered, "if I have to put a generating plant in that machine. Your prices are too derved high. Why I can buy one down at the Exchange for two dollars less. And besides it's only three years old ..."

Pop shrugged his shoulders and picked up

(Continued on page 118)

READERS' CLEARING HOUSE

By Jack Montgomery
Technical Editor



TROUBLE

- Engine Dies When Accelerating
- Wants More Horsepower
- Sticky Valve Problem
- Should We Plane Cylinder Head
- Overdrive Won't Engage
- Increasing Pick-Up on '52 Plymouth

Engine Balks On Acceleration

I have a 1952 Powerglide Chevrolet that is giving me some trouble. It has an Edmunds dual-carburetor manifold with one carburetor without choke and one carburetor with automatic choke. They have both been set to the original specifications and gone over several times. I still have a hesitation on acceleration, making only a slight difference whether the engine is cold or warm, so we believe we have plenty of choke. If the car is slowed to 20 mph and suddenly accelerated, the engine will die, unless the accelerator is pumped. It will also do this from a standing start. The accelerator pump in each carburetor has been checked for gasoline and they are both pumping a good stream. The engine has been tuned and plugs gapped at various settings, but it always leads me back to car-

buretion. If you could give me any help in this situation it would be appreciated.

Harlan Starke
Starke's Service & Implement Co.
Higginsville, Missouri

FIRST of all make sure the carburetors are synchronized; the best method for doing this is to use a tachometer while setting the throttle screws. Attach a vacuum gage to the manifold to obtain a smooth low speed mixture. These two items are very important on dual set ups. Also make sure the fuel pump pressure is adequate.

Wants More HP on 1949 Chrysler Convertible

I have a 1949 Chrysler 8 Town & Country convertible, and would like to get more horsepower with the present engine. Will you advise me

the best way to obtain this, and how much may be obtained?

A. M. Hodnett, Jr.
Mac's Body Shop
Halifax, Virginia

THE first thing I would suggest is grinding the valves and cleaning the carbon. While the cylinder head is off have .060 inch milled from it; this will increase the compression ratio to 7.5 to 1. The distributor should be carefully calibrated on a suitable bench tester. Also, the coil should be checked. The carburetor and fuel pump should be checked out as well as the exhaust system.

Complete Overhaul Fails To Stop Valve Sticking

I have a 1949 Pontiac eight with about 45,000 miles on it. The valves stick and tap at speeds ranging

FOR ADDITIONAL SERVICE INFORMATION REFER TO CHILTON'S

SHOOTING PROBLEMS

from 40 to 60 mph. As soon as I release the gas the tapping stops. The car has had a complete overhaul, the valves ground, refaced and the valve guides reamed. This lasted a short time but now the valves are sticking again at 50 mph. What is causing this problem and how can I correct it?

Michael Shultes
Lycippus, Penna.

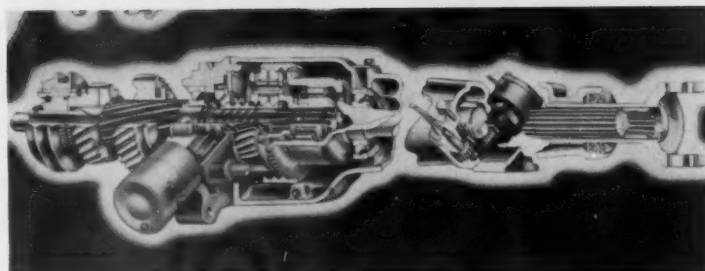
IT is hard to figure why these valves should give you so much trouble now, after having the engine overhauled. I would suggest cleaning the cooling system, it may be running hot. Also, the crankcase breather system should be carefully cleaned. You might try installing a top oiler. There are several of these on the market that will definitely prevent the valves from sticking.

Advised Against Planing Heads of 1947 Cadillac

Could you please tell me the maximum amount that I can remove from the heads of my 1947 Cadillac. I do not want to damage the engine by having the valves hit the heads. I would like to raise the ratio.

Leonard York
Nashua, New Hampshire

ON this model Cadillac there is very little clearance between the valve heads and the cylinder head, making it inadvisable to plane the head. The compression ratio is 7:25 to 1 now, which is not too bad. Rather than planing the heads, I would suggest giving it a good tune-



Ford Overdrive

up and then installing dual exhausts.

Overdrive Won't Engage; Ammeter Shows Discharge

I am having trouble with the overdrive in a 1953 Ford. It is inconsistent in operating. When the unit is cold it works all right, but after driving it 30 or 40 miles there are times when it will not engage. Then, when it is kicked down for passing, the ammeter shows "discharge." As long as it is disengaged and even with the manual control pulled out the "discharge" persists. I have removed the transmission, checked it thoroughly and could find nothing wrong. I have installed a new balk ring, relay, governor, kickdown switch and solenoid with the same results. All of these new units were installed at the same time.

Clyde Coombs
Auto Hospital
Tremonton, Utah

FROM your description of the trouble it would appear to me

that the solenoid pawl is sticking in the housing. I would suggest checking this first. Also, the kickdown switch might be sticking closed or you might have a short circuit in the wiring.

Wants to Increase Pick Up in 1952 Plymouth

I have a 1952 Plymouth and I would like to know what I can do to increase the pick-up, without using too much gas.

Ralph Manganiello
Brooklyn, New York

I WOULD suggest grinding the valves and cleaning the carbon and then go over the ignition system carefully. Also make sure the exhaust system is clear.



MOTOR AGE FLAT RATE AND SERVICE MANUAL

Dual Exhausts Are Boosting Muffler Sales

"The biggest single factor in extra exhaust business will be the increased popularity of dual exhaust systems. In addition, some cars are now using multiple muffler installations"

FROM all available figures, this year will be a big year in the exhaust system business. Two main reasons stand out: More cars will have reached the peak replacement age for mufflers than ever before, and more cars will be using dual exhaust systems than at any time previous.

The peak replacement age for mufflers, it is generally agreed, occurs between two and ten years. At about two years or 23,000 miles mufflers begin requiring replacement. By the time a car is ten years old, a second and third replacement is generally required. More than half of the 60 million vehicles on the road will fall within this two-ten year age bracket in 1956, according to an estimate of Charles Klaus, vice president of Maremont Automotive Products, Inc.

Nevertheless, the biggest single factor in extra exhaust business this year will be the increased popularity of dual exhaust systems, adds Klaus. Furthermore, V-8 engines are most adaptable for dual exhausts, and more V-8's are being produced now than ever before.

In addition, many cars with dual exhaust systems use as many as four mufflers, two to each side. Cadillac, Packard and Lincoln are the foremost examples. Many single exhaust systems now use

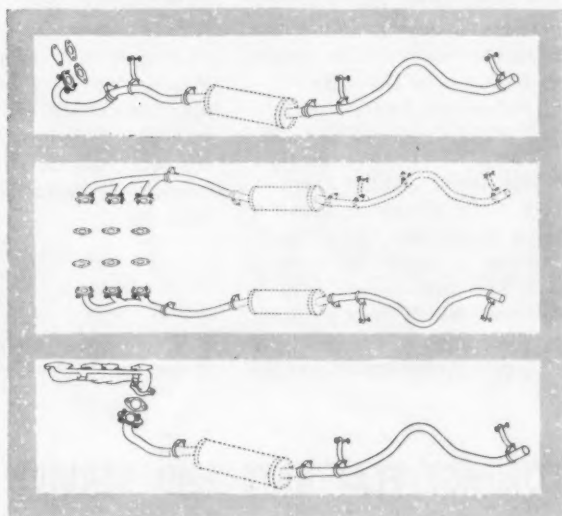
two to three mufflers, one behind the other, giving still another boost to the present exhaust system market.

Today, eleven car makes come with models that carry factory installed dual exhaust systems as either optional or standard equipment. Of these, three makes use four mufflers.

"Why use dual exhausts?" asks the customer. The explanation is simple.

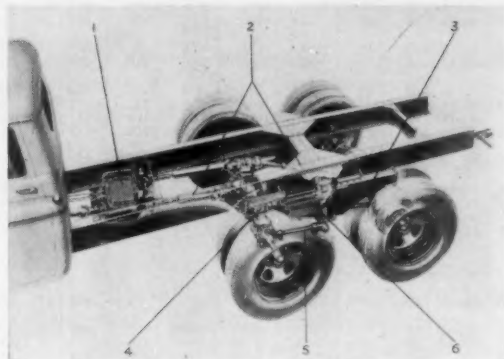
(Continued on page 130)

Typical parts layouts for dual exhaust systems. Top to bottom: Dual exhaust, dual header, and cast manifold systems.



Chevrolet's new tandem equipped 2½ ton tractor with trailer. One of the company's 40 HD models.

The new tandem axle. 1—Power divider. 2—Drive lines. 3—Walking beam spring housing. 4—Walking beam axle attachment. 5—Torque rods. 6—Two stage spring piles.



New tandem axle options make their bow in the 1956 Chevrolet "Task Force Truck" fleet which is the heaviest line in the company's history. Tandems "nearly double capacities"

Chevrolet's New Heavy Duty

Truck Fleet

ROUNDING out the most versatile truck fleet in the company's history, Chevrolet enters a heavier duty commercial field with the introduction of 40 new hauling giants to its 1956 line.

The new heavy-duty vehicles, all in the 2½ ton class, include models which have nearly double the capacity of any previous Chevrolet

truck. Ratings range up to 32,000 pounds maximum gross vehicle weight and 50,000 pounds gross combination weight.

With the 40 new models, Chevrolet's 1956 truck lineup is expanded to a total of 105 models on 23 different wheelbases. Features include optional tandem axle equipment.

(Continued on page 136)

1956 Tune-up Specifications

MAKE AND MODEL		ENGINE					TUNE-UP DATA										
		No. of Cylinders Bore and Stroke (In.)	Taxable H. P.	Piston Displacement (Cu. In.)	Maximum Brake H. P. at Specified R. P. M.	Compression Ratio	Spark Plug Make and Size (mm.)	VALVES				IGNITION					
								Seat Angle	Operating Tappet Clearance	Timing		Breaker Point Gap (In.)	Cam Angle (Deg.)	Spark Plug Gap (In.)	Timing Occurs C.		
										Inlet (Deg.)	Exhaust (Deg.)					Inlet (In.)	Exhaust (In.)	Inlet Tappet Clearance (In.)	Deg. Inlet Opens Before or After T. C.
AMERICAN MOTORS CORP.																	
Hudson	6-35640 6-35680 6-35680	6-3x4 $\frac{1}{2}$ 6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$ 6-4x3 $\frac{1}{2}$	21.60 34.88 51.20	202.0 308.0 382.0	120-4000 165-3800 220-4600	7.50 7.50 9.55	CH 14 CH 14 CH 14	45 45 29	46 45 44 $\frac{1}{2}$	.010H Hyd Hyd	.015C Hyd Hyd	.010 Hyd Hyd	26 $\frac{3}{4}$ B 33 $\frac{1}{4}$ B 14B	.019 .019 .016	39 39 31	.032 .030 .036	TC TC 5B
Metropolitan	4-561, 562	4-2 $\frac{1}{2}$ x3 $\frac{1}{2}$	13.22	90.9	52-4500	7.20											
Nash	6-5640 6-5660 6-5680	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$ 6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$ 6-4x3 $\frac{1}{2}$	23.44 29.40 51.2	195.6 252.6 382.0	130-4500 135-3700 220-4800	7.47 7.60 9.55	AL 14 CH 14 CH 14	45 30 29	45 45 44 $\frac{1}{2}$	.012H .012H Hyd	.016H .016H Hyd	.015 .023 Hyd	12 $\frac{1}{2}$ B 12 $\frac{1}{2}$ B 14B	.016 .019 .016	32 39 31	.030 .030 .036	TC 4A 5B
Rambler	6-5610	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	23.44	195.6	120-4200	7.47	AL 14	45	45	.012H	.016H	.015	12 $\frac{1}{2}$ B	.016	32	.030	TC
CHRYSLER CORP.																	
Chrysler	8-C71 8-C72 8-C72-300	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	46.50 49.70 49.70	331.0 354.0 354.0	225-4400 260-4600 340-5200	8.50 9.00 9.00	AL-14 AL-14 AL-14	45 45 45	45 45 45	Hyd Hyd .015	Hyd Hyd .024	VTS VTS VTS	5B 15B 35B	.017 .017 .017	31 31 31	.035 .035 .036	2B 4B 5B
De Soto	8-S23 8-S24	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	44.30 44.30	330.0 330.0	230-4400 255-4400	8.50 8.50	AL-14 AL-14	45 45	45 45	Hyd Hyd	Hyd Hyd	VTS VTS	4A 15B	.017 .017	31 31	.035 .035	8B 4B
Dodge	8-D62 8-D63-1 8-D63-2 8-D63-3	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	25.40 42.20 42.20 42.20	230.0 270.0 315.0 315.0	131-3800 189-4400 218-4400 230-4400	7.60 8.00 8.00 8.00	AL-14 AL-14 AL-14 AL-14	45 45 45 45	45 45 45 45	.010H Hyd Hyd Hyd	.010H Hyd Hyd Hyd	.014 VTS VTS VTS	12B 14B 11B 11B	.020 .017 .017 .017	39 31 31 31	.035 .035 .035 .035	2B 4B 6B 6B
Imperial	8-C70, C73	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	49.70	354.0	280-4600	9.00	AL-14	45	45	Hyd	Hyd	VTS	15B	.017	31	.035	4B
Plymouth	6-P28 8-P-29-1, 2 8-P29 8-P-29-3 Fury	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	25.40 42.20 45.00 46.50	230.0 270.0 277.0 303.0	125-3600 180-4400 187-4400 240-4800	7.60 8.00 8.00 9.25	AL-14 AL-14 AL-14 AL-14	45 45 45 45	45 45 45 45	.010H Hyd .012H .010H	.010H Hyd .020H .018H	.014 VTS VTS VTS	12B 14B 14B 9B	.020 .017 .017 .017	39 31 31 38	.035 .035 .035 .035	2B 4B 4B 4B
FORD MOTOR CO.																	
Continental	8-60A	8-4x3 $\frac{1}{2}$	51.20	368.0		9.00	CH-18	45 $\frac{1}{2}$	45 $\frac{1}{2}$	Hyd	Hyd		18B	.015	27	.034	5B
Ford	8 8-Mainline, Customline 8-Fairlane 8-Thunderbird 8-Thunderbird	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	31.54 42.05 45.00 45.00 46.21	223.0 272.0 292.0 292.0 312.0	137-4200 173-4400 200-4600 202-4600 218-4800	8.00 8.00 8.00 8.40 8.40	CH-18 CH-18 CH-18 CH-18 CH-18	45 $\frac{1}{2}$ 45 $\frac{1}{2}$ 45 $\frac{1}{2}$ 45 $\frac{1}{2}$ 45 $\frac{1}{2}$	45 $\frac{1}{2}$ 45 $\frac{1}{2}$ 45 $\frac{1}{2}$ 45 $\frac{1}{2}$ 45 $\frac{1}{2}$	.019H .019H .019H .019H .019H	.019H .019H .019H .019H .019H	.019H .019H .019H .019H .019H	24B 12B 12B 12B 12B	.025 .015 .015 .015 .015	37 27 27 27 27	.034 .034 .034 .034 .034	(a) (b) (b) (b) (c)
Lincoln	8-73A, 73B	8-4x3 $\frac{1}{2}$	51.20	368.0	285-4600	9.00	CH-18	45 $\frac{1}{2}$	45 $\frac{1}{2}$	Hyd	Hyd	NA	18B	.015	27	.034	5B
Mercury	8	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	46.21	312.0	210-4800	8.00	CH-18	45 $\frac{1}{2}$	45 $\frac{1}{2}$	.019H	.019H	.019H	12B	.015	27	.034	(b)
GENERAL MOTORS CORP.																	
Buick	8-40 8-50, 60, 70	8-4x3 $\frac{1}{2}$ 8-4x3 $\frac{1}{2}$	51.20 51.20	322.0 322.0	220-4400* 255-4400	7.60* 9.50	AC-14 AC-14	45 45	45 45	Hyd Hyd	Hyd Hyd	.004 .004	25B* 30B	.015 .015	21 21	.033 .033	5B 5B
Cadillac	8-60, 62, 75	8-4x3 $\frac{1}{2}$	51.20	365.0	285-4800**	9.75	AC-14	44	44	Hyd	Hyd		39B	.016	31	.035	5B
Chevrolet	6-1500, 2100, 2400 8-1500, 2100, 2400 8-2934	6-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	30.40 45.00 45.00	235.5 265.0 265.0	140-4200 162-4400†† 225-5200	8.00 8.00 9.25	AC-14 AC-14 AC-14	31 46 46	46 Hyd 46	Hyd Hyd .008H	Hyd Hyd .018H		10 $\frac{1}{2}$ B 18B** 21 $\frac{1}{2}$ B	.019 .019 .019	30 30 31	.036 .036 .036	TC 4B 4B
Oldsmobile	8-88 8-Super 88, 98	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	48.00 48.00	324.3 324.3	230-4400 240-4400	9.25 9.25	AC-14 AC-14	45 45	45 45	Hyd Hyd	Hyd Hyd	N N	11 $\frac{1}{2}$ B 11 $\frac{1}{2}$ B	.016 .016	30 30	.030 .030	5B 5B
Pontiac	8-5627 8-5628	8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	49.60 49.60	316.6 316.6	205-4600* 227-4800*	8.90 8.90	AC-14 AC-14	30 30	45 45	Hyd Hyd	Hyd Hyd	ER ER	22B** 22B**	.016 .016	30 30	.036 .036	5B 5B
STUDEBAKER-PACKARD CORP.																	
Packard	8-5640 8-5660 8-5680 8-5688	8-4x3 $\frac{1}{2}$ 8-4x3 $\frac{1}{2}$ 8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-4 $\frac{1}{2}$ x3 $\frac{1}{2}$	51.20 51.20 54.45 54.45	352.0 352.0 374.0 374.0	240-4600 275-4600 290-4600 310-4600	9.50 9.50 10.00 10.00	CH-14 CH-14 CH-14 CH-14	29 29 29 29	44 $\frac{1}{2}$ 44 $\frac{1}{2}$ 44 $\frac{1}{2}$ 44 $\frac{1}{2}$	Hyd Hyd Hyd Hyd	Hyd Hyd Hyd Hyd		14B 14B 14B 14B	.016 .016 .016 .016	27 27 30 30	.035 .035 .035 .035	5B 5B 10B 10B
Studebaker	6-56C 8-56B 8-56H 8-56J	6-3x4 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$ 8-4x3 $\frac{1}{2}$	21.60 40.60 40.60 51.20	185.6 259.2 289.0 352.0	107-4000 170-4500 195-4500 275-4600	7.80 7.80 7.80 9.50	CH 14 CH 14 CH 14 CH 14	45 45 45 29	45 45 45 44 $\frac{1}{2}$	.016C .024H .024H Hyd	.016C .024H .024H Hyd	.020 .030 .030 Hyd	15B 11B 11B 14B	.020 .016 .016 .015	39 31 31 31	.031 .036 .036 .036	2B 4B 4B 4B

ABBREVIATIONS

†—With overdrive only; 225-4600 with Fordomatic.

▲—With overdrive only; 9.00 with Fordomatic.

●—With automatic transmission.

■—8.90 with Dynaflo.

*—3CB with Dynaflo.

**—Eldorado, 305-4700.

††—170 4400 with Powerglide.

▲▲—26 $\frac{3}{4}$ B with Powerglide.

●●—27B with Hydramatic.

(a)—4B with standard and overdrive transmission; 6B with Fordomatic.

(b)—3B with standard and overdrive transmission; 6B with Fordomatic.

(c)—3B with overdrive; 6B with Fordomatic.

A—After.

AC—A.C. Spark Plug Div.

AL—Electric Auto-Lite Co.

B—Before.

C—Cold.

CH—Champion Spark Plug Co.

ER—End of ramps used for valve timing.

H—Hot.

Hyd—Hydraulic valve lifters, zero clear-

ance.

N—No or none.

NA—Not available.

NU—Not used.

TC—Top center.

VTS—Valve train solid.

Motor Age Shop Clinic Quiz

An absorbing and easy-to-do

Quiz of ten questions based

on the article on pages 44-45



Again this month MOTOR AGE editors present a Quick Quiz based on the contents of the Quick Service article. This article—entitled "Quick Service on the '56 PLYMOUTH V-8"—begins on page 40.

Answers to the Quick Quiz appear upside down in the box at the lower right hand corner of this page. Of the 10 questions, the last six are either true or false. If one statement in the question is false and the other is true, the whole question should be treated as false.

1. In the removal of the oil pan for the V-8 engine place a jack between the converter housing and the lower control arm. Then push engine (forward), (backward), (up), (down) about one inch to remove the oil pan.

2. If the automatic choke of the 277 cu. in. engine stays open after the engine has cooled, hard starting is likely to result. What has probably happened to the coil housing?

3. What is the clearance for the hydraulic lifters used on the 270 cu. in. engine?

4. What is the adjustment procedure for changing the clearance on the hydraulic lifters of

the 270 cu. in. engine?

True or False

5. The normal fluid capacity for the power steering system is three and one-quarter pints.

6. In testing the coil on the '56 Plymouth V-8, two tests are recommended. One when the coil is cool and one when the coil has warmed up. The coil and the ballast resistor may be tested as one unit.

7. On the 277 cu. in. engine the bore and stroke is 3.75 x 3.13 and on the 270 cu. in. it is 3.63 x 3.256.

8. In replacing the distributor drive shaft and drive gear, with the number one piston at top dead center, the slot at the gear end of the distributor shaft should point to the first intake manifold bolt on the left side of the engine. The distributor rotor should be turned to the number one spark plug wire.

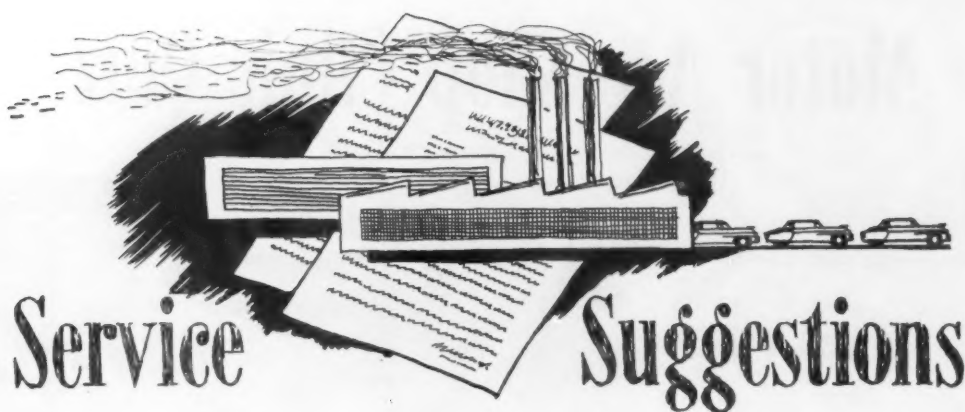
9. At normal operating temperature of the engine, the mechanical tappets of the 277 cu. in. engine should have the intake rocker arms adjusted to .012 inches and the exhaust to .020 inches.

10. In setting the vacuum advance to specifications it may be-

come necessary to add or remove washers to make the proper adjustment. To reduce the advance a thinner type washer should be installed and to increase the advance, a thicker type washer should be used.

Answers to Quick Quiz (turn page upside down)

1. backward.
2. coil housing is making contact with the side of the well, hence choke is likely to open late.
3. zero clearance.
4. no adjustment procedure needed because of the special design of the plunger travel in the lifter.
5. false, $3\frac{1}{2}$ pints.
6. false, test coil and ballast resistor separately.
7. true.
8. true.
9. true.
10. false, thicker washer to increase, thinner to increase.



Preparing an Engine for Camshaft Bearing Removal

The recommended procedure for preparing a Pontiac engine for camshaft removal is as follows: Remove radiator, timing chain cover, intake manifold, push rod cover, rocker arm covers, push rods, hydraulic lifters and the camshaft. Remove crankcase ventilator lower baffle if front center, center or rear center camshaft bearing is to be replaced. Note: Lower baffle is retained by case hardened drive screws. In order to remove these screws it will be necessary to carefully pry on them using a chisel and hammer and working between the block and baffle until they pull loose enough to be turned out with pliers. Care should be used not to shear off the heads of screws since the case hardening makes them practically impossible to drill out if they are broken off.

Rocker Arm Covers Are Modified on Late Models

Early 1955 Mercury rocker arm covers were manufactured without an inner retainer flange for holding the cover gasket in place. When replacing the gasket on these covers it will be necessary to seat the gasket firmly against the outside flange. It should be secured to the cover with a fast-drying cement. Covers on engines manufactured on late models were equipped with this inner flange.

New Hydraulic Lifter Eliminates Valve Float

An improved hydraulic valve lifter assembly has been in use on all 1955 series Cadillac cars beginning with Engine No. 88700 (approx.). The later type lifter has an additional spring at the ball check valve, and the ball retainer has been redesigned to accommodate the spring and increase ball travel.

These changes make possible a more accurate flow of oil through the lifter plunger and body passages, thus providing quieter operation and also reducing "valve float," or "pump-up" as it is sometimes referred to. This condition is the cause of a flat spot in engine performance noticeable at higher R.P.M. It is due to failure of the valves to seat properly because zero clearance is not being maintained by the lifters. Only the new type lifter should be used for service replacement on 1955 series Cadillac cars.

Deck Lid Catch Modified For Easy Locking Action

A modified deck lid lock catch is found on late 1955 Plymouths. The horizontal bar at the top of the catch is bent slightly downward to provide additional clearance and prevent possible interference between lock and catch. In all cases, proper closing action depends on a proper fit of the deck lid. The lock should also be well centered in the

opening. These points should be checked and if necessary adjusted before making any other adjustments on the deck lid.

Reducing the width of the catch will also provide easier closing of the deck lid by causing the lock rotor to move into position more quickly. The width can be reduced by striking the catch with a hammer on one side while holding a heavy hammer or dolly on the opposite side. Do not reduce the width too much, as it will cause interference when the lid is lowered. Try the fit as the width is reduced. A final adjustment of the lock and catch may be necessary to center the lid in the opening.

Power Brakes Chatter On Brake Application

A chattering movement encountered on application of the power brake pedal of a Dodge, particularly at the beginning of a rapid application while the car is moving or standing still, is probably due to a trace of air in the hydraulic system. To correct this condition, it is suggested that the bleeder screw on the power brake unit be opened to bleed out the air while depressing the brake pedal.

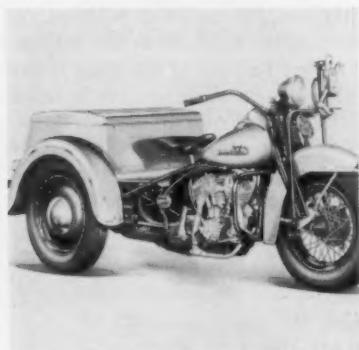
Note: Since the power unit is the highest point in the hydraulic system, any air trapped in the system will collect in the unit, therefore, in extreme cases, more than one bleeding of the power brake unit may be required.

New PRODUCTS SHOW WINDOW

FOR FURTHER INFORMATION USE POSTCARD FACING NEXT PAGE

65 Service Cycle

Harley-Davidson: This company's Servi-Car for 1956 features



new pistons, air cleaner and an extra sturdy rear chain guard. The battery box has also been eliminated on the new Servi-Car for reasons of appearance. Along with a number of engine changes the new vehicle offers improved hydraulic brakes, an adaptable tow bar and a handy carrying box, according to the maker.

66 Steam Cleaner

Quick Steam Div. of Quick Charge, Inc.: This company has marketed a complete line of automatic steam cleaners. One portable model is oil fired and has 120 p.s.i. working steam pressure. Two electric switches control water and fuel pressures and consumption, with no need for manual adjustment for each operation, it is stated. Gasoline and electrical driven models are also available in 120 p.s.i., 150 p.s.i., and 200 p.s.i. They feature two gun and

two operator stations in these ranges.

67 Color Matching Guide

Sherwin-Williams Co.: This firm has marketed twelve base paint tinting colors in its "Opex OK Tint Pak" for matching original finishes. Included with the pack is a 32 page book giving recommendations for tinting all 1954 and '55 car colors. The tinting guide explains which way a refinish coat



must be tinted to match the original (weathered) finish, and what tinting color should be used to create the matching shade.

68 Tubing Dispenser

Dorman Products, Inc.: This company has marketed a copper tubing dispenser. The tubing comes coiled on a steel spool in the new unit which features an

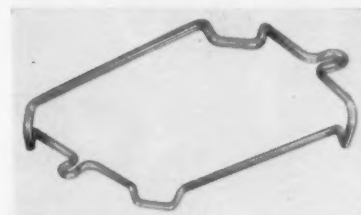
automatic tubing straightener. Marked every foot the coil is 100 ft. in length and is cut as used. The dispenser contains spools of 3/16, 1/4, 5/16, 3/8 in. and one 50 ft. spool of 1/2 in. copper tubing, according to the maker.

69 Hose Clamp

Breeze Corporations, Inc.: A stainless steel hose clamp has been marketed by this firm. The Aero-Seal Jet is quickly attached by pushing the housing to a snug fitting position on the clamp band, the maker claims. The worm screw threads drop into slots automatically and are secured by a few turns, according to the manufacturer. The jet is available in a complete size range, it is stated.

70 Battery Hold Down

Whitaker Cable Corp.: The basic construction of this battery hold-down is steel rod which is formed and welded to fit all battery types, the maker states. The structure is coated with Duravin insulation to insure a rattle-proof battery in-

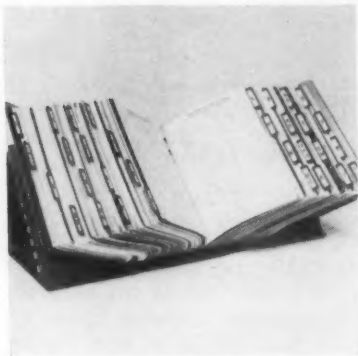


stallation said to be impervious to all corrosive agents.

(Continued on page 68)

71 File System

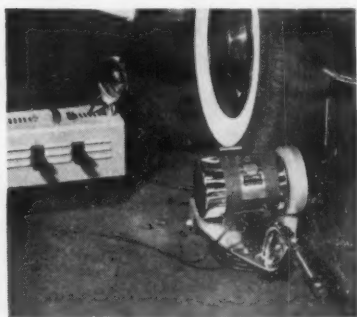
Buchan Loose Leaf Records Co.: Maintaining catalogs, price lists,



and other reference material in an organized file system is said to be easy with this company's catalog unit. The units are said to accommodate any desired number of sheets, can be expanded in two ways for greater capacity, and are available in counter or desk-top models. A feature of the unit, the maker states, is the 1 and 2 inch capacity sheetholders which make sheet changing simple and speedy.

72 Wheel Balancer

Wheel Balancer Manufacturers Associated: The unit, known as the "Foto-Tel," is small, portable, and houses one tube to permit easy maintenance, the company states. Dynamic balance correction is said to be obtained by moving a switch. The unit has full capacity to service all passenger cars, light and heavy trucks, it is



claimed, and it is not necessary to remove any part of the car when balancing.

73 Twin Antennas

Antenna Specialists Company: This manufacturer has marketed twin automotive antennas. The set of two 26½ inch extended telescopic antennas, complete with leads, comes in a self displaying package unit, it is stated. The double headers are available in chrome or choice of six baked-on colors. They are also available as a dummy set, the maker states.

74 Tool Board

New Britain Machine Co.: A 3 x 2 feet service kit board has been marketed by this manufacturer. Designed to keep automatic transmission tools within easy reach, the board is made of ¼ inch masonite. The board is said to make a highly effective tool holder as well as a display device to indicate the availability of transmission service to customers.

75 Chrome Cleaner

Fletcher-Hillyer Corp.: Traffic film, grease, rust and stains on chrome trim can easily be wiped off when using this company's new chrome cleaner, it is said. In use "Chrome Clean" is applied to a non-abrasive steel wool pad which sets up a chemical reaction in the cleaner. When the saturated pad is applied to the chrome surface, it dissolves stains, and so on, without rubbing, according to the company.

76 Car Supports

Walker Manufacturing Co.: A line of low cost adjustable car supports has been marketed by this manufacturer. The new Walker Car S'ports are available in a complete range of capacities and are said to incorporate long life durability and performance. The unit's turned edge base design is said to assure safe use on uneven surfaces.

77 Chuck Gage

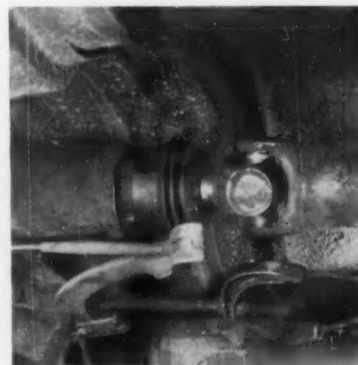
A. Schrader's Son: The chuck gage marketed by this firm has a one piece plastic body and is said to feature a low cost gage unit



that can be replaced without removing the gage from the airline. Another feature of the gage is the interchangeability of the gaging units. It can quickly be converted from a passenger car range of 10 to 40 pounds to the truck and bus range of 16 to 110 pounds, by changing the gage unit, the maker states.

78 Ball Boot

Davis Ball Boot Co., Inc.: Two new models of this firm's Ball Boots are now available. They are



for Ford cars and pickups from 1949 through 1955, all transmissions, and for 1955 Chevrolet cars and pickups, all transmissions. Made of neoprene, the boots are installed at the rear of the transmission housing and are said to prevent intrusion of road dirt and grit into and past the factory grease seal.



The Inquiry Card—How It Works

EACH month Motor Age's New Products Show Window describes dozens of fast-moving items and money and time saving equipment from the country's leading manufacturers of dependable automotive products.

When you want more free information on any of these products, simply mark a circle around the same number on the postcard as appears under the item described. You may circle as many items as you wish. Use either or both cards. Separate information will be sent to you on each item. Be sure to give your full name and address.

New Literature

79. Accessories Catalog

Gray Company, Inc.: A lubrication accessories catalog has been published by this firm. The illustrated catalog describes the company's small equipment, accessories and supplies used in automotive and farm lubrication. Air and hand-operated equipment for specialized service, control valves, adapters, fittings, hose and many other lubrication supplies are included in this new catalog.

80. Direct Mail Booklet

American Automatic Typewriter Co.: A 16-page illustrated booklet entitled "Quality with
(Continued on next page)

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| 65. Service Cycle | 74. Tool Board | 83. Ignition Parts Catalog |
| 66. Steam Cleaner | 75. Chrome Cleaner | 84. Tune-Up Chart |
| 67. Color Matching Guide | 76. Car Supports | 85. Wheel Rim Die |
| 68. Tubing Dispenser | 77. Chuck Gage | 86. Electric Tailgate |
| 69. Hose Clamp | 78. Ball Boot | 87. Truck Mirror Arm |
| 70. Battery Hold Down | 79. Accessories Catalog | 88. Whitewall Cleaner |
| 71. File System | 80. Direct Mail Booklet | 89. Wheel Checks |
| 72. Wheel Balancer | 81. Identification Manual | 90. Screw Drivers |
| 73. Twin Antennas | 82. Brake Service Guide | 91. Wall Chart |
| | | 92. Brake Shoes |

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Your Company.....
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| | | 92. Brake Shoes |

Your Name.....Your Title.....
Your Company.....
Your Business: Wholesaler.....Repair Shop.....Car Dealer.....
Address.....(Street & No.).....(City).....(Zone).....(State).....

New Products

Continued from Page 69

Quantity," has been published by this firm. The publication contains techniques and tips on injecting the personal touch into repetitive correspondence or direct mail promotions. It points out how personal letters can be used on a volume basis via automatic typing. Among other things the booklet covers such subjects as the advantages of the personal letter, and cost comparisons of automatically typed and hand typed letters.

81. Identification Manual

Champion Parts Rebuilders: A comprehensive, 20-page guide to water pump and Ford-Mercury-Lincoln distributor identification has been published by this firm. The guide is released as a supplement to Champion's carburetor identification guide. Both manuals contain most unit models and show recognizable characteristics of each. In addition, a complete cross-reference table to Champion-rebuilt units is provided.

82. Brake Service Guide

American Brakeblok Div. of American Brake Shoe Co.: A revised edition of the Brake Service Guide has been published by this company. The pocket-size guide contains descriptions, pictures and diagrams giving details of brake system operation. A special section is devoted to power brakes.

83. Ignition Parts Catalog

Guaranteed Parts Co., Inc.: This firm has published a 44-page Marine and Industrial Engine catalog covering component ignition parts for distributors, generators and starters. Hundreds of replacement items are listed for various makes by model numbers as well as individual Distributor, Generator and Starter numbers. A separate section is devoted to magneto contact sets and condensers for small air-cooled engines. Copies are free.

84. Tune-Up Chart

Tasco Products, Inc.: A tune-up chart said to condense all essential information on one side is now available through this firm. The 18 x 28 in. chart features data (without footnotes) covering all cars through current models.

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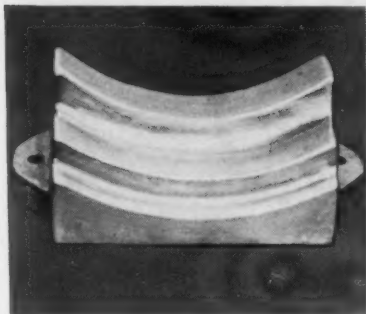
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85

Wheel Rim Die

Riverside Rim & Wheel Co.: A die made to fit the contours and



curvature of tubeless rims has been marketed by this manufacturer. The die acts as a cushion and mold. According to the maker, a bent rim is heated and then hammered to shape against the die or squeezed out on an hydraulic press. This process restores an airtight seal, vital to tubeless mounting, it is said.

86

Electric Tailgate

Hi Tender Company: The Electro-Gate marketed by this firm is an electric tailgate for small trucks. The tailgate is available in sizes to fit the beds of eight different trucks from the ½ ton pickup to the 1½ ton flatbed, according to the maker. The smaller models have a capacity of 800 pounds and the largest has a capacity of 1200 pounds. The manufacturer states that the unit can be mounted quickly using a ¾ inch drill and a crescent wrench.

87

Truck Mirror Arm

K-D Lamp Company: This firm has marketed the latest addition



to its line—a Dodge truck mirror arm with bracket. Made for late model Dodge trucks, the unit has an 11 to 14½ inch extension, hinge mounting, heavy duty seamless

steel tubing, extension joints reinforced, and elevation adjustment held in place by tension washers, according to K-D.

88

Whitewall Cleaner

Valley Products Co.: Valley Whitewall Tire Cleaner is now being packaged in an unbreakable, multi-colored plastic squeeze bottle as well as glass bottler with spray pumps, according to the maker. This spray cleaner is claimed to lift and float away road stains, dissolve dirt, grease, road oil and tar. It is further stated that this liquid will not leave yellow stains.

89

Wheel Chocks

Calumet Steel Castings Corp.: A recently designed safety tool for the blocking of vehicle wheels is the Casteel utility wheel block. This steel casting is said to be light weight and compact in size. In addition, the block is said to



hold fast on every surface, with an ample factor of safety for the heaviest equipment. The design affords stiffening members at the rear corners, which also serve as handles.

90

Screw Drivers

Snap-On Tools Corporation: A set of specially hardened Phillips screw drivers is available which, it is claimed by the manufacturer, helps eliminate the problem of ruined tips. The blades are chrome plated for rust prevention. In addition the handles are of

shock proof, black plastic which is practically unbreakable, it is further stated.

91

Wall Chart

Raybestos Div. Raybestos-Manhattan, Inc.: Complete specifica-



tion data on brake linings and lined brake shoes for all popular passenger cars and light trucks, including 1955 models, is now available on a 4-page chart published by this manufacturer. The 2-color, 12 x 18 inch folder may be fastened to the shop wall to prevent misplacement, the company states.

92

Brake Shoes

Grey-Rock Div. of Raybestos-Manhattan, Inc.: Factory bonded brake shoes with balanced brak-sets and trucksets are being marketed by this company. Woven linings have been combined with molded linings to achieve better braking performance, the company states. In other sets special



molded types are used where all molded combinations give best results, it is said.

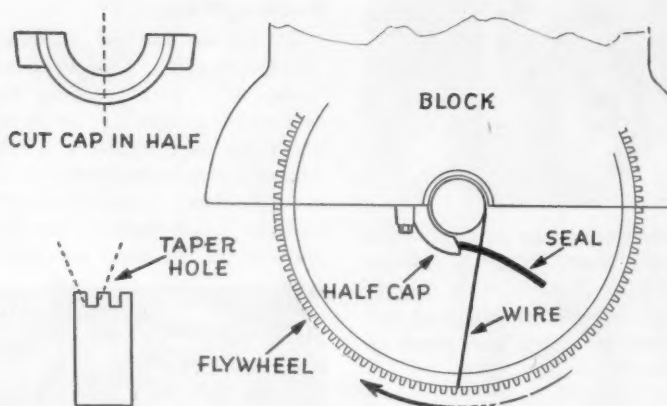
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\$25

Fast Method to Install Rear Main Bearing Seal



My short cut for installing the upper rear main bearing oil seal on Chevrolets is done as follows: Cut a discarded rear main bearing cap in half and taper the oil seal groove to a funnel shape. Bolt one half to where the original cap was located. Then, feed an old choke wire around the crankshaft and attach it to the new seal. Attach the choke wire to the flywheel teeth and turn the flywheel slowly to pull the seal into place. *Guy R. Bailey, Jr., Box 201, Hooker, Oklahoma.*

Loose Baffle Screws Cause Engine Miss

When the carburetor is removed from the Nash 10 and 40 series for any reason, the two screws that hold the baffle in the block should be checked. I have found some of these loose and in a few cases they had come out completely. The screw holes enter the center exhaust port and if open will cause the engine to run very poorly. It gives the same effect as a burned out heat riser on some other makes of cars. *Victor McGee, L. E. Dick Motor Co., 415 N. 7th St., Mayfield, Ky.*

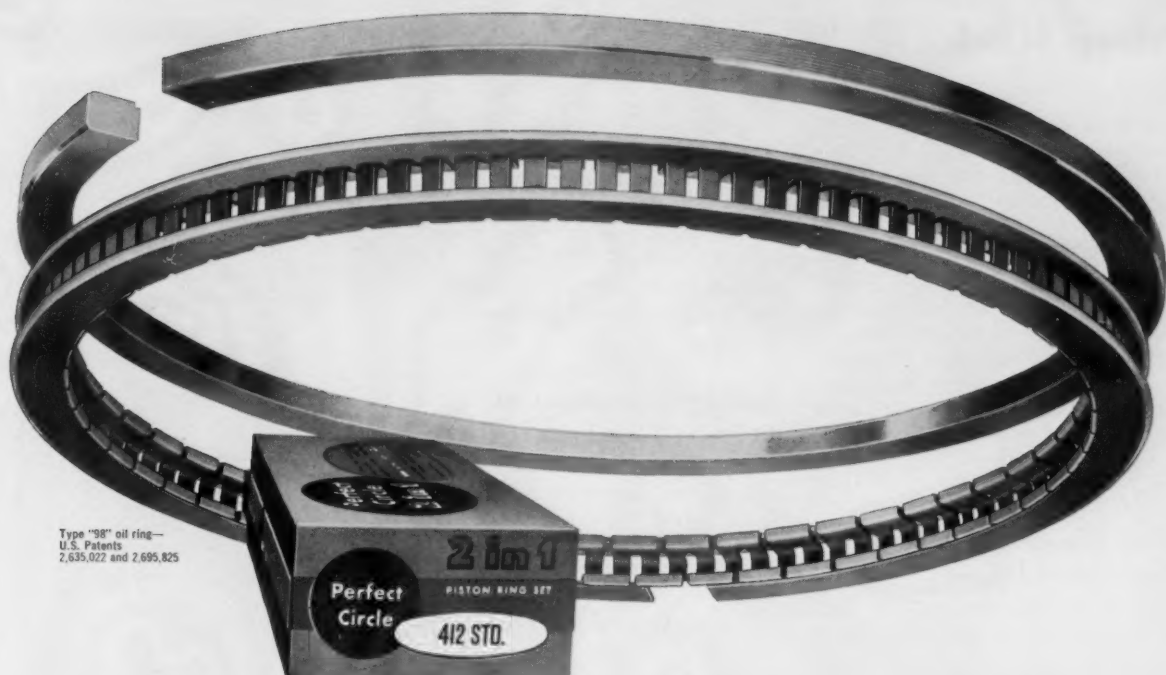
Method to Remove Broken Head Stud

I have found a simple method to remove broken studs when a thread extractor is not available. Drill four 3/16 inch holes (close enough to touch each other) in the head of the stud. Then remove the center core with a larger drill. A piece of square bar stock can now be jammed into the hole and turned with an open end wrench to remove the stud. *Robert Missen, 1290 Darley Rd. West, Wantagh, Long Island.*

Permanent Antifreeze Combined with Alcohol

If you use alcohol antifreeze, it is a good idea to substitute one quart of permanent antifreeze for one

(Continued on page 74)



Type "98" oil ring—
U.S. Patents
2,635,022 and 2,695,825

COMPARE

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New type "98" chrome oil ring*

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cars produced in the U.S. in 1955 were equipped with Perfect Circle Type "98" chrome oil rings.

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Perfect Circle

piston rings

The standard of comparison

Perfect Circle Corporation, Hagerstown, Indiana; The Perfect Circle Co., Ltd., Toronto, Ontario.

Shop Kinks Continued from Page 72

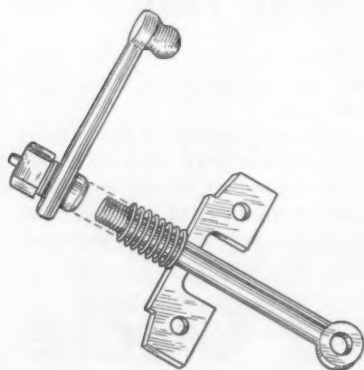
quart of the alcohol. This much permanent will be sufficient to prevent freezing solid in case all the alcohol boils away. This gives protection for cooling systems up to 20 quarts, after which two quarts of permanent should be used. Tester readings will not be accurate with this mixture, but a reading can be taken after filling and thorough mixing, and the system later compared against this reading. *Charles Erwin Cohn, 7720 Marquette Ave., Chicago 49, Ill.*

Ring Compressor For Small Bore Engines

Piston ring compressors for small bore engines like those used on garden tractors, lawnmowers, chainsaws and so on, can be a problem to find. I use radiator hose clamps, of the adjustable ribbon type, preferably with geared type clamps. About three sizes will take care of all small bore engines using piston rings, when assembling the piston into the cylinder. *Guy Stevens, Stevens Garage, Middlebury Center, R. D. 1, Pa.*

Valve Spring Stops Idler Arm Rattle

Occasionally a rattle will develop in the idler arm of a Nash due to thread and bushing wear. Since this occurs within a few thousand miles, the wear is not sufficient to



warrant replacement. To stop the rattle, I first get a Chevrolet valve spring and cut off the first three

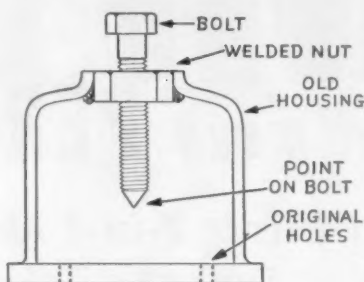
coils that would ordinarily go next to the head. Grind the outer coils flat and place on the bracket. Position the seal half way down inside the spring and screw the bracket into the bushing. *William H. Fitzgerald, Yantis-Harper, 1121 Garrison Ave., Fort Smith, Arkansas.*

Simplifies Removal of Steering Hose Seats

I have found a method to speed removal of power steering hose seats. First, tap out the old seats with a 5/16 N.F. tap. After this, install a 5/16 N.F. bolt, nut and washer in each seat. Make sure that the washer is larger than the hole. The 5/16 tap makes good solid threads that will not strip too easily in the brass seats. *C. Hall, 329 Broadway, Bangor, Maine.*

Discarded Part Made Into Useful Puller

A very useful hand brake drum

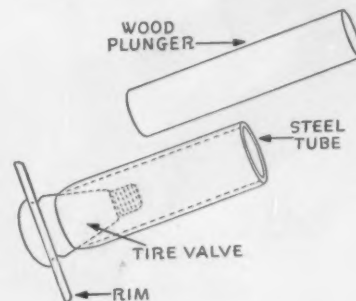


puller can be made from discarded parts. To make mine, I obtained a Dodge (or Plymouth) universal-joint housing. I welded a nut, about 3/4 inch, in the small end of the housing. A 6 inch bolt of the proper diameter is then filed to a point and turned into the nut. *J. Norman Martin, Peoples Garage, Inc., Bedford, Virginia.*

Makes Tool to Remove Tubeless Tire Valve

The tool I have devised makes it easy to remove valves from tube-

less tire rims without damaging the valve. I first get a piece of steel tubing and ream the end to the same size as the rim hole. This sleeve is forced down over the valve, which has been well coated with a good lubricant. With the sleeve in place the hardwood plunger (previously cut to fit the steel sleeve) is given a light tap. The sleeve compresses the valve



stem and removes it without damaging the sealing side. *George Welty, Welty's Service Station, Washburn, Wis.*

Discarded Needle Valve Seat Plugs Gas' Line

When grinding valves or when doing an engine job it is necessary to turn the engine over from time to time. With the carburetor removed for the job, the problem of gasoline spraying over the engine from the open line is ever present. To overcome this hazard, I obtained an old carburetor needle valve seat, soldered the hole shut, and install it on the fuel line. *W. F. Schmidt, Alden MacLellan, Inc., Allentown, Pa.*

Steel File Makes Good Horn Contact Burnisher

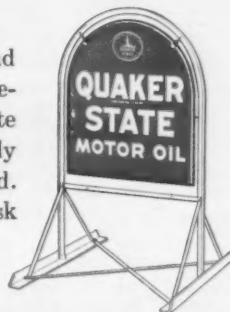
The tool I have fashioned is useful for filing the vibrating points in horns and for cleaning voltage and current regulator points. This tool is made by grinding one side of a steel file down far enough so it will slip easily between contacts without changing the gap. Care must be taken to avoid letting the file get too hot while grinding. Too much heat will affect the temper. *Even L. Rude, Nagle Auto Sales, 118 S. Broadway, Toledo, Iowa.*



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with Quaker State Detergent Additive!"**

Quickest, easiest way to solve your customers' "stop and go" driving problems such as sticking hydraulic valve lifters, sludge and varnish deposits, poor compression, and rough idling is the cleansing, engine-freeing action of Quaker State Detergent Additive! Add

it to any good oil in the crankcase, and it goes to work fast, with positive results! With high quality Quaker State Detergent Additive, you can get exactly the degree of cleansing action needed. Easy to use—profitable to sell! Ask your Quaker State salesman.



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Current Passenger Car Price, Weight and Body Table

Following are prices at factory for cars with standard equipment as of February 27, 1956. State or local taxes, transportation and finance charges and optional equipment are extra.

BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight
BUICK					CHRYSLER—Cont'd					FORD—Cont'd					PACKARD				
Special 40	2111	202	2313	3750	New Yorker Sedan, 4d	3402	271	3673	4110	Fairlane V8 Tudor Sedan	1922		3250		Clipper Sedan, Del., 4d	2505	226	2731	3065
Sedan, 4d	2166	206	2372	3790	Newport, 2d	3562	283	3845	4175	Fordor Sedan	1964		3290		Sedan, Sup. 4d	2631	235	2866	4010
Riviera, 4d	2204	209	2413	3775	St. Regis	3603	286	3889	4175	Victoria, 2d	2058		3345		Hardtop, Sup.	2677	239	2916	4035
Riviera, 4d	2270	214	2484	3860	Newport, 4d	3702	293	3995		Crown Victoria Sunliner	2193		3360		Sedan, Cus. 4d	2820	249	3069	4070
Conv. Cpe.	2467	229	2696	3880	Conv. Coupe	3833	303	4136	4360	Crn. Vict. Trmp.	2212		3455		Constellation	2908	256	3164	4070
Est. Wagon	2500	231	2731	3945	300R	4084	323	4417	4460		2257		3370		Packard				
					Sport Coupe	3997	315	4312	4145	Sta. Wgn. V8 Ranch					Patrician	3826	334	4160	4255
Century 60					Imperial Sedan, 4d	4381	344	4725	4565	Cust. Ranch	2049		3473		Packard 400	3855	335	4190	4290
Riviera, 2d	2660	258	2918	3890	Southamp. 2d	4625	382	4987	4530	Ctry. Sed., 6p	2109		3488		Caribbean	5069	426	5495	4590
Riviera, 4d	2717	263	2980	4000	Southamp. 4d	4747	372	5119	4580	Ctry. Sed., 8p	2153		3503		Carib. Conv.	5534	461	5995	4960
Est. Wagon	2932	279	3211	4080	Crown Imp. Sedan, 4d	6945	521	7466	5145	Parklane	2276		3628						
Conv. Cpe.	2979	282	3261	4045	Limousine	7070	530	7600	5205	Ctry. Squire	2373		3638		PLYMOUTH				
															Plaza 8				
Super 50					DE SOTO					HUDSON					Bus. Coupe	1894	132	1728	3030
Riviera, 2d	2684	275	3159	4140	Sedan, 4d	2393	194	2587	3855	Wagon					Club Sedan	1886	138	1825	3100
Sedan, 4d	2927	278	3205	4200	Firedome	2445	198	2643	3865	Super Sed., 4d	2179	201	2380	3264	Sedan, 4d	1726	142	1868	3145
Riviera, 4d	3010	285	3295	4265	Seville, 2d	2537	205	2742	3940	Hornet-6					Savoy 6				
Conv. Cpe.	3200	299	3499	4340	Seville, 4d	2537	205	2742	3940	Super Sed., 4d	2504	225	2729	3545	Club Sedan	1776	148	1924	3125
					Sportsman, 2d	2557	207	2764	3910	Cust. H. T., 2d	2737	241	2978	3636	Sedan, 4d	1818	149	1967	3160
					Sportsman, 4d	2649	214	2863	3920						Sport Cpe.	1915	156	2071	3150
Roadmaster 70					Conv. Cpe.	2788	223	2991	4090	Hornet-V8					Belvedere 6				
Sedan, 4d	3148	310	3458	4280	Sta. Wagon	3037	243	3280	4235	Cust. Sed., 4d	2986	259	3245	3862	Club Sedan	1856	162	2008	3125
Riviera, 2d	3230	316	3546	4235	Fireflite	2803	226	3029	4000	Cust. H. T., 2d	3119	269	3388	3872	Sedan, 4d	1896	155	2051	3170
Riviera, 4d	3324	323	3647	4355	Sedan, 4d	3014	242	3256	4030					Spt. Sedan	1993	162	2155	3185	
Conv. Cpe.	3335	324	3659	4395	Sportsman, 2d	3093	248	3341	4050	LINCOLN					Suburban 6	2056	167	2223	3270
					Conv. Cpe.	3198	256	3454	4125	Capri					De Luxe, 2d	1977	161	2138	3285
					Pace Car	3264	261	3525		Sport Coupe	3735		4289		Custom, 2d	2043	166	2209	3355
					Adventurer	3369	269	3638		Sedan, 4d	3821		4289		Custom, 4d	2086	169	2255	3375
															Sport, 4d	2244	181	2425	3420
CADILLAC					DODGE					Premiere					Plaza 8				
Series 62					Coronet, 6	1961	160	2121	3250	Coupe	4183		4362		Bus. Coupe	1690	139	1829	3170
Coupe	3569	313	3882	4358	Club Sedan, 2d	2029	163	2194	3295	Sedan, 4d	4183		4362		Club Sedan	1782	146	1928	3290
Sedan	3658	319	3977	4370	Sedan, 4d	2061	167	2228	3380	Convertible	4318		4362		Sedan, 4d	1822	149	1971	3275
Coupe de Ville	3964	341	4305	4427	Club Sedan	2129	172	2301	3435	MERCURY					Savoy 8				
Convertible	4067	351	4418	4627	Lancer	2187	177	2364	3430	Custom					Club Sedan	1874	153	2027	3255
Eldorado	5814	472	6286	4909	Lancer, 4d	2293	185	2478	3520	Med. Sed., 2d	2012		3430		Sedan, 4d	1914	156	2070	3295
					Convertible	2410	194	2604	3600	Sedan, 2d	2102		3505		Spt. Coupe	2011	163	2174	3275
Series 60					Royal, V8	2257	182	2439	3475	Sedan, 4d	2157		3520		Belvedere 8				
Sedan	4342	396	4738	4540	Lancer	2322	187	2509	3505	Coupe, 2d	2227		3560		Sedan, 4d	1992	162	2154	3325
Series 75					Lancer, 4d	2428	195	2623	3630	Sta. Wagon, 6p	2447		3790		Spt. Coupe	2089	168	2258	3320
Fltwd. Imper.	5895	492	6187	5015	Cust. Royal	2399	190	2549	3520	Sta. Wagon, 6p	2537		3860		Spt. Sedan	2152	174	2326	3415
	5895	507	6402		Lancer	2424	195	2619	3505	Monterey					Conv. Coupe	2238	181	2419	3435
CHEVROLET					Lancer, 4d	2530	203	2733	3630	Sedan, 4d	2292		3570		Suburban 8				
One-Fifty, 6cyl.					Convertible	2628	210	2838	3630	Coupe, 2d	2362		3590		De Luxe, 2d	2073	168	2241	3460
Util. Sedan	1550	150	1700	3120	Sta. Wagons	2237	180	2417	3455	Sta. Wagon, 6p	2684		3885		Custom, 2d	2139	173	2312	3500
Sedan, 2d	1635	157	1792	3155	Suburban, 8 cyl.	2337	188	2525	3505	Monterey					Custom, 4d	2182	176	2358	3565
Sedan, 4d	1675	160	1835	3195	Sierra, 6 p.	2446	196	2642	3725	Sport Sed., 4d	2382		3850		Sport, 4d	2340	188	2528	3605
Sta. Wagon, 2d	1955	182	2137	3335	Cust. Suburb	2457	197	2654		Sta. Wagon, 6p	2537		3885		Fury 8				
					Sierra, 8 p.	2544	204	2748	3710	Montclair					Sport Coupe	2599	208	2807	3690
Two-Ten, 6 cyl.					Cust. Sierra, 6p.	2587	207	2794	3710	Coupe, 2d	2487		3820		PONTIAC				
Sedan, 2d	1715	163	1878	3185	Sta. Wagon	2685	215	2900	3800	Sport Sed., 4d	2507		3610		Chieftrain 666				
Sedan, 4d	1758	166	1921	3220	Suburban, 8 cyl.	2237	180	2417	3455	Convertible	2612		3725		Sedan, 2d	2041	195	2236	3452
Delray Cpe.	1770	167	1937	3185	Sierra, 6 p.	2446	196	2642	3725	NASH					Sedan, 4d	2095	199	2294	3512
Sport Cpe.	1955	174	2029	3225	Cust. Suburb	2457	197	2654		Metropolitan*					Catal. Cpe.	2162	204	2366	3512
Sport Sed., 4d	1905	178	2083	3285	Sierra, 8 p.	2544	204	2748	3710	Hardtop			1445	1825	Catal. Sedan	2230	209	2439	3577
Sta. Wagon, 2d	1995	186	2181	3355	Cust. Sier. 6p.	2587	207	2794	3710	Convertible			1469	1785	Sta. Wagon, 2d	2346	218	2564	3612
Sta. Wagon, 4d	2040	189	2229	3405	Sta. Wagon	2685	215	2900	3800	Rambler-6					Sta. Wagon, 4d	2424	224	2648	3707
Sta. Wag. 4d, 9p	2120	194	2314	3450	Customline 6	1743				Del. Sed., 4d	1642	153	1795	2281	Chieftrain 870				
					Tudor Sedan	1857				Super Sed., 4d	1743	162	1805	2296	Sedan, 4d	2202	207	2409	3512
Bel Air, 6 cyl.					Fordor Sedan	1899				Cust. Sed., 4d	1854	171	2025	2929	Catal. Cpe.	2284	212	2478	3512
Sedan, 2d	1820	171	1991	3195	Customline 8	1793				Cust. Hl. Top	2008	182	2190	2990	Catal. Sedan	2314	216	2530	3577
Sedan, 4d	1880	174	2054	3235	Tudor Sedan	1857				Cus. Sta. Wgn.	2106	189	2295	3110	Sta. Wagon, 4d	2513	231	2744	3657
Sport Cpe.	1960	182	2142	3225	Fordor Sedan	1899				Statesman 6					Star Chief 8				
Sport Sed., 4d	2010	188	2196	3290	Fairlane 6	1829				Super Sed., 4d	2146	199	2345	3199	Sedan, 4d	2308	215	2523	3577
Convertible	2215	203	2418	3350	Fordor Sedan	1871				Ambass. 6	2425	219	2644	3555	Cust. Cat. Cpe.	2436	225	2661	3567
Sta. Wagon, 4d	2245	195	2440	3475	Victoria, 2d	1965				Super Sed., 4d	2425	219	2644	3555	Cust. Cat. Sed.	2501	230	2731	3647
Sta. Wagon, 2d	2360	214	2574	3425	Crown Victoria Sunliner	2099				Conv. Coupe					Conv. Coupe	2614	239	2853	3797
					Crn. Vict. Trmp.	2164				Ambass. V8					Cust. Sta. Wgn.	2986	258	3124	3642
One-Fifty, 8cyl.										Super Sed., 4d	2716	240	2956	3748	STUDEBAKER				
Util. Sedan	1642	157	1799	3095	Sta. Wgn. 6	1956				Cust. Sed., 4d	2939	256	3195	3846	Champion				
Sedan, 2d	1727	164	1891	3130	Ranch Wagon	2016				Cust. Hl. Top	3072	266	3338	3894	Sedan, 2d	1678	163	1841	2780
Sedan, 4d	1767	167	1934	3170	Ctry. Sed., 6p	2060				Del. Hol. Cpe.					Sedan, 4d	1772	171	1943	2800
Sta. Wagon, 2d	2047	189	2236	3310	Parklane	2163				Del. Hol. Sed.					Sedan, 4d	1819	174	1993	2835
					Ctry. Squire	2280				Conv. Coupe					Commander				
Two-Ten, 8 cyl.															Sedan, 2d	1792	178	1970	3085
Sedan, 2d	1807	170	1977	3160	Mainline, V8	1855				Series 88					Sedan, 2d	1886	186	2072	3110
Sedan, 4d	1847	173																	



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"Stone walls, iron bars, squads of guards — nothing protects money and property like our burglar alarm service — in co-operation with the police, of course.

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1955 New Passenger Car Registrations by Makes by States*

STATE AND MONTH	Buick	Cadillac	Chevrolet	Chrysler	Continental	De Soto	Dodge	Ford	Hudson	Lincoln	Mercury	Nash	Oldsmobile	Packard	Plymouth	Pontiac	Studebaker	Willis	Misc. Dom.	Foreign	Total
Alabama	Dec. 866	147	3806	179	4	117	302	3102	43	37	565	89	787	27	965	804	111		1	28	12,060
12 Mos.	8667	1150	28473	1611	6	1038	3031	26524	442	382	4635	799	7353	370	9257	7353	1025	29	5	229	101,651
Arizona	Dec. 471	109	1394	82	1	70	183	1488	25	31	305	67	375	37	389	404	87		1	87	5,606
12 Mos.	3691	752	8990	793	2	466	1548	8723	260	199	1814	526	2383	302	3195	2466	763	32	12	368	37,303
Arkansas	Dec. 101	20	492	16		17	35	454	6	4	91	8	111	4	116	101	12			1	1,569
California	Dec. 3963	634	13020	656	2	507	1650	13473	273	176	2569	338	3804	185	4631	3456	566	34	6	30	49,573
12 Mos.	8527	1606	14718	1158	34	852	1802	12736	213	555	3915	535	4585	288	3938	4373	856	17	3	1719	60,442
Colorado	Dec. 343	115	1126	90	5	95	135	1051	400	4745	47229	9497	52321	4449	47327	50084	10922	469	136	19506	865,892
12 Mos.	4927	1287	15106	1631	6	949	2454	14353	422	38	252	60	317	27	274	269	71			7	4,269
Connecticut	Dec. 829	204	1826	236	7	145	388	1714	44	59	389	124	4760	463	4952	4332	957	23	7	263	61,925
12 Mos.	10222	2243	21045	3347	16	1750	4707	21275	971	563	4942	2273	8095	1147	10687	7972	1602	83	16	1923	105,579
Delaware	Dec. 226	50	626	54	2	37	117	547	1	13	105	12	205	15	226	204	27			1	2,482
12 Mos.	2262	409	5845	387	3	318	863	5678	20	127	1026	141	1535	120	2230	1605	243	16	3	109	22,940
Dist. of Col.	Dec. 245	93	780	85	1	37	91	497	13	13	84	10	210	53	344	228	23			3	2,635
12 Mos.	3257	889	7262	807	25	216	486	5323	46	177	881	102	1791	145	1361	1480	212	14		387	34,729
Florida	Dec. 1576	639	50078	3747	36	2346	6132	48331	1012	1224	9676	1696	16256	1219	14513	13333	2376	162	19	1874	195,468
12 Mos.	16707	4931	50078	3747	36	2346	6132	48331	1012	1224	9676	1696	16256	1219	14513	13333	2376	162	19	1874	195,468
Georgia	Dec. 432	103	2619	56	1	35	128	2103	5	22	187	21	378	32	310	335	51			1	6,841
12 Mos.	11161	1861	38676	1931	2	1268	4608	37277	213	434	6800	955	9898	842	10478	11328	1800	78	47	30	139,382
Idaho	Dec. 213	99	531	58	1	39	104	428	30	31	139	29	135	18	133	182	43			1	2,182
12 Mos.	2538	474	5374	670	2	462	1200	4607	313	157	1418	459	1864	210	1859	1948	617	38	6	110	24,272
Illinois	Dec. 3928	1192	9484	1068	24	815	1299	8629	346	290	2188	527	3932	229	3765	3009	428	8		110	41,288
12 Mos.	51913	11010	100899	11049	37	7410	17015	89207	5765	2445	24758	7423	44294	3579	44466	32372	5722	323	98	1108	460,883
Indiana	Dec. 1645	336	10231	322	7	274	568	3975	80	101	751	176	1507	85	1277	1211	330	5		43	16,914
12 Mos.	24533	3879	51721	4926	16	4460	8671	50886	42	45	442	102	713	53	727	551	125	2		34	229,951
Iowa	Dec. 817	190	2584	237	2	138	364	2556	1435	936	10673	3188	18319	1637	20283	17798	5752	206	24	442	229,951
12 Mos.	9616	1625	28353	2406	6	1475	4448	25722	634	428	5406	1292	8010	44	492	508	69	22		215	9,446
Kansas	Dec. 607	117	2167	119	4	94	192	1819	44	42	343	104	544	697	8974	7296	1611	9	22	215	108,294
12 Mos.	8618	1591	24987	1948	8	1290	3688	23315	735	403	5006	1705	7052	665	8002	8738	1289	69	21	162	7,332
Kentucky	Dec. 873	104	3120	134	1	104	256	2318	32	28	357	43	612	31	686	638	75	2		182	99,292
12 Mos.	8949	997	23517	1341	1	1032	3182	21410	365	191	3733	784	6225	434	7336	5887	1000	69	12	70	85,105
Louisiana	Dec. 745	162	2800	144	2	121	278	2699	12	44	468	62	751	49	736	767	154			12	10,016
12 Mos.	7390	1385	26737	1493	6	1046	3067	27675	207	339	4420	671	8047	481	8283	8236	1578	52	9	183	101,265
Maine	Dec. 122	25	392	24		42	62	462	13	6	51	29	96	12	121	97	27			1	1,634
12 Mos.	2427	411	7578	577	2	581	1280	6564	340	45	338	655	1646	213	1016	891	116	56	14	288	30,191
Maryland	Dec. 761	157	2548	181	2	170	372	2050	29	45	338	655	1646	213	1016	891	116			74	9,456
12 Mos.	10761	1798	29215	2264	8	2160	4982	25802	576	455	5274	1113	8722	929	13524	8578	1733	58	9	576	118,567
Massachusetts	Dec. 839	205	1962	205	4	150	283	2059	53	60	341	159	920	52	683	564	87			1	8,693
12 Mos.	17121	3002	37062	4154	16	3301	8642	39227	1365	846	7538	4248	16995	1308	18092	12775	1937	115	29	1880	177,704
Michigan	Dec. 5333	1650	12433	878	24	716	1511	10059	145	277	2036	373	3917	319	3401	3037	456	2	3	191	46,761
12 Mos.	59170	11315	121589	8478	74	7483	21334	118578	209	2385	26739	4843	39645	3417	42528	36530	3942	223	45	1177	512,525
Minnesota	Dec. 1075	341	4033	282	6	2194	4940	31456	890	514	3055	37	433	21	555	459	80			14	189,429
12 Mos.	11760	2256	30279	2716	6	3002	5680	41447	519	647	9275	2047	14211	842	19579	14487	2381	103	34	420	129,439
Mississippi	Dec. 504	93	2218	64	3	70	169	1779	8	26	355	1472	12186	1118	10705	8059	2220	90	1	189	6,827
12 Mos.	4886	828	17144	822	5	787	2020	15895	181	202	2829	317	3938	271	3826	4483	742	1		33	61,807
Missouri	Dec. 936	218	3580	163	2	219	293	2801	33	54	339	125	929	60	1208	1076	117			9	176,704
12 Mos.	15167	2716	43332	2819	6	3002	5680	41447	519	647	9275	2047	14211	842	19579	14487	2381	103	34	420	129,439
Montana	Dec. 107	45	561	49	1	25	84	546	19	13	107	22	158	17	127	89	46			1	2,029
12 Mos.	1937	511	1263	69	2	387	1354	8072	332	154	1389	388	2071	306	2105	1901	659	28	7	116	27,045
Nebraska	Dec. 398	89	1263	69	2	48	135	1048	12	23	182	35	317	33	295	236	44			1	5,236
12 Mos.	6290	1009	13916	1282	4	841	2338	15113	244	236	3270	550	4302	424	4879	3924	822	49	6	57	59,626
Nevada	Dec. 83	29	237	14		71	41	254	9	11	65	7	114	5	13	62	28			2	1,055
12 Mos.	1103	366	2141	274	2	229	471	2432	85	80	671	126	1145	213	956	922	624	4	2	246	12,067
New Hampshire	Dec. 140	36	455	33	2	35	78	462	18	13	84	35	141	8	139	169	38			2	1,912
12 Mos.	1773	295	5893	462	3	360	1001	4921	371	136	1094	583	1505	186	2138	1853	409	30	5	279	23,046
New Jersey	Dec. 31662	6448	50986	8194	28	6351	11386	49720	1382	1383	14240	3005	22352	2674	26315	17560	3237	164	31	219	258,527
12 Mos.	2640	705	4916	733	13	577	939	4348	89	186	1044	196	2119	164	2188	1338	204	3		160	3,743
New Mexico	Dec. 278	84	1040	69	1	52	109	943	10	8	233	17	268	30	213	293	43			212	30,501
12 Mos.	3181	566	7684	870	1	383	1102	6601	77	223	1822	276	2344	229	2098	2620	495	21	2	126	50,517
New York	Dec. 5191	1849	9272	1688	47	1194	2086	10215	231	418	3213	638	4965	439	5114	3194	458	29	63	799	134,859
12 Mos.	69969	15741	127106	19951	21	13307	28082	118719	3428	3534	31476	60512	43	866	829	114	7	1	31	63,859	
North Carolina	Dec. 1034	218	3752	218	4	178	411	3797	49	59	580	75	1032	5889	65854	45851	7257	616	282	7109	134,859
12 Mos.	11757	1907	32845	2695	6	2030	4421	34343	586	490	5995	1113	10131	670	10898	10434	1535	138	18	14	132,114
North Dakota	Dec. 117	31	595	52		30	57	438	7	7	69	13	113	8	163	81	25			1	1,807
12 Mos.	1545	313	5436	561	19	474	1112	5314	109	97	1163	269	1714	192	2241	1145	343	15	4	2	2,055
Ohio	Dec. 3672	899	8978	865	37	8747	21701	98113	2369	2185	23476	5259	35996	3688	39824	34063	4905				

The big swing today is to CHROME...

Yes, it's true. All major engine manufacturers are using chrome piston rings as original equipment—recommend them for replacement. Latest survey figures indicate 57% of installations are chrome.



... AMERICAN HAMMERED

pre-seated Krome-Oil piston ring sets
assure fast break-in... instant oil control

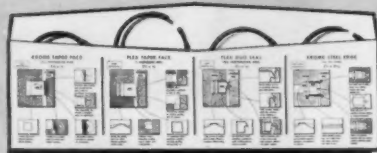


HERE'S WHY: Pre-seating is a factory-applied lapping process equivalent to many hundreds of miles of actual engine operation—assures instant oil control, customer satisfaction. Rugged dynamometer tests and strict manufacturing controls assure Krome-Oil's ability to hold oil on even the toughest jobs.

Be sure you're installing a full chrome ring set. Check for chrome on the top groove compression ring, on the rails of the oil ring. Install chrome confidently because Krome-Oil is pre-seated, seats instantly.

Handle the tough jobs right the first time—
avoid costly comebacks

INSTALL KROME-OIL



All-in-one ring envelope

All-in-one ring envelope contains all the rings for one piston. Packaged in order of installation. This prevents mix-ups, saves mechanic's time.



American Hammered

AUTOMOTIVE REPLACEMENT DIVISION

2001 Sanford Street • Muskegon, Michigan

Manufacturers of American Hammered Automotive Replacement Piston Rings • A Division of Sealed Power Corporation

Remember profit-packed American Hammered Power-Plus Service
KOETHERIZING • GI-60 GROOVE INSERT

A Great Industry . . . Continued from Page 43

to produce the maximum of volume. . . .

We feel confident that as the contract problem is solved, attention will be given to the Quality Dealer program and that we will be on the road to restoring the confidence of the public in the automobile industry. . . .

Let's talk for a moment about

time sales—the "No Money Down" deal. . . . Surely the advertising of ridiculous terms does not enhance the prestige of the automobile dealer.

It has another effect. As a result of the advertising of ridiculous terms; (even though not available) we are relaxing on proven and time tested policies of automobile financ-

ing. We are making a new car buyer out of a man who should be a used car buyer. We take his small down payment and by adding a substantial discount, work out a deal on a new car on which we have very little profit.

I need not tell you the importance that used car sales play in the final success of an automobile dealer—and yet, here we take a prospect who rightfully belongs in a used car—one on which we could make about as much as we make on a new car sale at today's prices, and upgrade him to a new car. We arrange payments for thirty—or thirty-six months and at amounts which this buyer can hardly afford—and we have taken him out of the market for three years. Does this make sense? . . .

You may wonder that there are some of our problems that I have not touched on. The reason for this is that others in meetings to follow, will cover them in great detail.

As I have visited with many of you in your own states, I have expressed optimism about the retail automobile business. In spite of the problems and the differences that exist, I am more than ever convinced that it is a good business. It's challenging—it's competitive—and it's ever changing.

Then why are we not content with it?

The simple truth is that the people who contribute most in life—and are the happiest—are the discontented people who are not satisfied with things as they are and who try to improve them. . . .

Ours will never be a static business—it will always be dynamic. And it will be so because of its very nature—but more particularly because of the good people in it.

As we got away from the Quality Dealer concept we acquired a few who start the practices which cause most of our problems—perhaps with a push from those in authority who do not believe in the Quality Dealer idea—but just as surely as can be the American public will force a return to a quality type of merchandising, and the unethical automobile merchandiser will cease to exist.

Many other great industries had their problems of adjustments be-

(Continued on page 82)

RUSCO



EDGEBRANDING . . .

SYMBOL OF SAFETY

Sell safety where it counts . . . with Rusco brake linings engineered to take the higher temperatures of power brakes. Rusco's name is branded on the linings edge where customers see constant proof of more safe miles per dollar.

Rusco Fused Fabric brake linings with greater density and tensile strength are fade-free under severest conditions of heat and moisture . . . outwear conventional brake linings by thousands of miles.

Rusco Edgebranding and Fused Fabric's patented construction provide positive identification important to the entire bonding industry.



THE RUSSELL MANUFACTURING CO.

MIDDLETOWN, CONNECTICUT

New! Genuine Schrader Chuck Gauge

with replaceable
gauge unit

Accurate Gauging—continuous
visibility of easy to read
calibrations—Gauge Unit
replaceable in a few seconds

Comfortable Grip—
shaped to fit the hand

Ease of Operation—Single push-
button control of all three
—Gauging—Inflating—Deflating

Tough Nylon—molded in one
piece—built to last and last!

Dual Foot or Single Foot—
wear and oil-resistant
Hose Units replaceable

Operating Valve with
"O" ring construction—
long life—replaceable

The New Schrader #3650 Type Chuck Gauge



8052 COUPLER
Check Unit—Adapters



Reliable Air Chucks

Everything you need to keep your airlines profit lines

Your airlines are money to you! These genuine Schrader Products help you give complete and accurate tire service. Install a new Schrader Chuck Gauge, with replaceable gauge unit, in all your strategic service areas. Teamed with Schrader Couplers and Adapters, this new Chuck Gauge adds up to the kind of service that saves steps, time, trouble . . . keeps your customers coming back to you.

Remind your customers of the importance of proper tire inflation, it's a key part of your "Certified Air Service" program. Use Schrader Gauges and all Schrader Air Products—keep your air service up-to-date. Order from your supplier today.



**Gauges
you need for
better Air Service**

Schrader®

ESTABLISHED IN 1944

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
470 Vanderbilt Avenue, Brooklyn 38, New York

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

A Great Industry . . . Continued from Page 80

fore they matured, just as we are having ours. They licked theirs, just as we will lick ours. . . .

Our job, therefore, is to sell quality. Quality merchandise. Quality sales. Quality Dealers.

Many of you who have heard me in state meetings will remember that I said I have great faith in this retail automobile business,

and in the men who make up every segment of it.

That faith has been strengthened in the past few months.

If we have these things, quality and faith, we need have no fear that the public will ever lose confidence in us or in our industry and, furthermore, we will be able to say, in good conscience, the Retail Auto-

mobile Business is a good business and it will continue to be a good business.

God bless you all.

Prof. Slipmink: "I wonder where that fedora of mine is. I've been looking for it for an hour."

Wife: "Did you ever think of looking on your head?"

Professor: "By jove, there it is. It's a good thing you told me or I'd have had to go to the faculty meeting without it."

time for Spring Cap Inspection



*get 'em
ready for
the open road*

Radiator cap examination is an essential part of preparing cars and trucks with *pressurized cooling systems* for summer . . . to prevent overheating and water loss. It's as necessary to good engine operation as thermostat service. Install the proper **Stant EVRSEAL Pressure Cap** if the customer's cap is broken, worn or the wrong cap. Insist on Stant . . . built to quality standards . . . not to a price . . . engineered in co-operation with automotive engineers for original equipment at the car factories.

recognized standard

32 years of original equipment experience on filler caps for cars, trucks, tractors and direct to radiator manufacturers. Stant has been the *complete line source* for a generation! Write today for catalog on Stant radiator caps, oil filler caps, gas caps and the Cap Merchandiser . . . perpetually-working silent salesman, *naming your jobber.*

STANT MANUFACTURING CO., INC.
Connersville, Indiana



*Used on America's Finest Automobiles
as Standard Equipment for a generation*

Ford Aiding Dealers For Driver Training

Ford Division of Ford Motor Company recently announced a new two-point program, including a 7-million-dollar Ford car loan project, to help the nation's schools increase their driver-training activities.

Aimed at supplementing the number of Ford cars already available for driver training, the new plan results from suggestions made by traffic safety specialists who attended Ford's National Safety Forum in Dearborn last year.

The program was announced at the Convention of the International Association of Chiefs of Police where Ford made a special report on what took place at the forum.

The program, effective immediately, includes:

1) An incentive plan to make it financially easier for the nation's 6,700 Ford dealers to lend annually 7 million dollars worth of safety-equipped Fords to authorities of accredited schools sponsoring driver-training courses. The incentive includes a discount on each unit lent by the dealer. Ford Division said each car will be equipped with the safety features which embody Ford's concept of packaging the passenger as a means of reducing injuries in the event of an accident.

2) A kit of educational materials consisting of motion picture film and booklets containing reports on the National Safety Forum, and the latest available research data on what happens to people involved in automobile accidents.

This kit also is being made available to law enforcement agencies upon request.

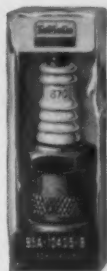
Packaged with a view—to build Ford service business



Genuine Ford
Condensers



Genuine Ford
Distributor Points



Genuine Ford
Spark Plugs



Genuine Ford Oil Filter Elements
in a special draw-string package

*Ford's new picture-window parts packages
and draw-string oil filter cartons help build
Ford-owners' confidence in you... by proving
you carry the right parts for Fords*

● Handsome new display packages for condensers, rotors, generator and starter brush sets and other Genuine Ford Parts attract the Ford-owner's eye, remind him of additional service jobs to be done. And he quickly gets the idea that the man who offers the right parts for Fords will give the right service, too. Start building your Ford business today, by ordering Genuine Ford Parts in the smart new display packages.



GET THIS SIGN

Display a Genuine Ford Parts oval and pull in more Ford business. Ford owners watch for it. Mail coupon for details.



PARTS AND SERVICE SALES DEPARTMENT

Ford Division, Ford Motor Company, Box 658, Dearborn, Mich.

Please send complete information telling me how independent garages can get a Genuine Ford Parts sign. I'd like to cash in on this, too!

FIRM NAME _____

INDIVIDUAL'S NAME _____

ADDRESS _____

CITY _____

STATE _____

H _____

Plymouth Continued from Page 45

the recommended specifications, remove the retaining nut and add or remove washers to make the necessary adjustment. Check washer thickness and install a thinner washer to increase advance. To reduce the advance, install a thicker washer.

Before testing vacuum advance, make sure diaphragm is leak proof.

Connect unit to vacuum pump on tester and apply 10 to 20 inches of vacuum. Shut off pump. If gage reading falls, it indicates a faulty vacuum chamber which should be replaced.

Automatic Choke

Two types of automatic chokes are used. One is integrated with

the carburetor and the other is mounted on the intake manifold. This latter type is used on the 277 cu in. engine. The choke housing containing the thermostatic coil spring is located in a well at the exhaust cross-over passage.

Normally, the choke of the 277 cu in. engine's carburetor will require little or no servicing. But make sure the operating rod works freely at the choke shaft. Also the coil housing on the shaft. Again, make certain that the coil housing does not contact the sides of the well. Any contact will cause the choke to open late. This may result in the choke staying open after the engine has cooled, leading to hard starting.

Usually the choke will function properly if the index mark is set at a point halfway between the "L" (lean) and the "R" (rich)

Sturdy... Dependable

GROTE CLEARANCE AND MARKER LAMPS



"All's clear Port and Starboard"



Grote Clearance and Marker Lamps are available in armored, round, streamline and beehive types. Surpass all S.A.E. and I.C.C. requirements. Constructed for rugged, heavy-duty use. Withstand shock, resist lens breakage. Highest quality Grotelite lens insure bright, dependable identification.

Insist on GROTE lamps. See your Jobber today, or write for catalog and prices.



Lamps • Directional Signals • Reflectors • Flares • Mirrors
Distributed throughout the U.S. and Canada

THE GROTE MANUFACTURING CO., INC., Bellevue, Ky. • Opposite Cincinnati

NO. 204 Streamlined Type

Designed for use on curved surfaces. Affords high visibility front and sides.

NO. 200 Armored Type—Fresnel

style plastic lens.

NO. 225 Round Type

Heavy, smooth surface glass lens.

NO. 207 Two-Way Beehive Type

Available with red, amber, green or clear lens. Recommended for use on pole trailers, projecting loads, etc.



marks. Setting may be changed if necessary by moving the index mark towards lean or rich as required.

The integral type choke found on the 270 cu in. engine's carburetor is adjusted by rotating the choke housing to the marks indicated (again "R" (rich) or "L" (lean).)

Adjusting Tappets

Mechanical tappets are found on the 277 cu in. engine. Adjust-
(Continued on page 90)

THE *Black & Decker*® VITRI-GLAZE SYSTEM GIVES YOU \$135 extra profit A WEEK!



- Pays for itself in quick n' easy PROFITS!
- You can buy it for as little as \$11.30 a month!

With Black & Decker's new Vitri-Glaze System, you practically DOUBLE your car polishing profits! This is the finest INSIDE-OUTSIDE car appearance reconditioning method ever perfected. It gives your customer's car complete interior and exterior treatment—in less time and with less work on YOUR part—yet you charge him no more than he now pays for old-fashioned

hand-polishing! And ... charging the same price, YOUR profits about DOUBLE on every polishing job!

Compare Vitri-Glaze with hand polishing

	VITRI-GLAZE	HAND POLISHING
Time	2½ hrs.	6 hrs.
Labor	\$3.75	\$9.00
Price	\$15.00	\$15.00
Profit	\$11.25	\$6.00

You do your customer's car—inside and out—in less time, with less work ... and make nearly twice as much profit!

The B&D Vitri-Glaze System . . .

- Makes your customer's car LOOK LIKE NEW! STAY SHINY LIKE NEW!
- It CLEANS, SEALS and POLISHES in an EASY ONE-STEP OPERATION!
- Vitri-Glaze is applied *automatically*, with the famous B&D Polisher!
- Besides treating the car exterior—the B&D Vitri-Glaze System also completely vacuums and sanitizes the interior!
- Fresh Air Spray removes stale odors, replaces them with a *clean, fresh, pleasant odor!*
- AND DOES ALL THIS SO FAST, SO EASILY that you can handle many more jobs, with less help ... at MUCH HIGHER PROFIT TO YOU!

ONLY 2 VITRI-GLAZE JOBS A DAY (6 DAYS A WEEK) BRING IN AN EXTRA \$135—AND MORE —ALL CLEAR PROFIT, WITH LESS WORK!

HERE'S WHAT YOU GET WHEN YOU ORDER YOUR NEW B&D VITRI-GLAZE SYSTEM . . .

The Black & Decker®

OFFERS EVERYTHING YOU NEED TO MAKE



And Remember...You Can Start Your Big VITRI-GLAZE PROFITS

Vitri-Glaze System

MORE MONEY...IN MUCH LESS TIME!

**This whole deal pays for itself
right out of quick n' easy profits!**

The Famous B&D Automatic Polisher!

Does polishing jobs quicker, easier than any other polishing method. Cleans, seals, polishes in *one* operation!

3 NEW, Improved B&D Vitri-Buff Bonnets!

Specially designed to take full advantage of the free-and-easy motion of the B&D Polisher. Last 4 times longer than ordinary buffs.

6 Gallons of NEW B&D Vitri-Glaze!

No other polish shines so well or lasts so long. Removes road scum, seals in beauty, gives gleaming new protection to body!

The NEW Improved B&D Polishop!

Completely mobile; designed to stand on! Holds all your materials. Helps to merchandise your polishing services, too—with display message on side! Serves as long-lasting step-stool.

The Sensational NEW B&D No. 65 Vacuum Cleaner!

Specially made for automotive use! Large wheels for easy mobility; flexible hose extends to 15 feet; 70% to 100% more cleaning power than any comparable unit; very compact, rugged and versatile!

NEW B&D Accessories, to Save Time, Work!

Included in this System only—a handy storage compartment right on the Vacuum Cleaner to hold accessories. A plastic cover to protect the cleaner. A Fresh Air Spray—a quick n' easy way to knock out stale smells, replace with fresh, pleasing odor!

**You get all this
merchandising . . . FREE!**

**A GIANT
OUTDOOR
BANNER!**



Waterproof, durable, colorful! Will catch the eye of every motorist, pull 'em in to ask about the B&D Vitri-Glaze System!

50 JUMBO POSTCARDS, IN 4 COLORS!



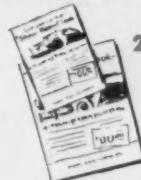
Mail these to your best prospects, with your own imprint—and watch the polishing jobs start to come in!

72 WINDSHIELD STICKERS!

In a handy roll, easily detached. This is the personalized attention your Vitri-Glaze customers will love. These stickers tell everyone in your neighborhood that "this car has been given the Vitri-Glaze System treatment!"



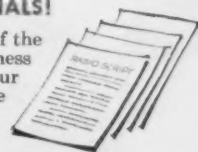
2 NEWSPAPER ADS—IN MAT FORM!



We've prepared 'em for you—all you have to do is run 'em locally. Tie in with your own postcard mailings—for faster profits!

RADIO COMMERCIALS!

Written by experts—and one of the fastest ways to spark new business locally. Just buy the time, at your low local rate, and hand these commercials to the radio station man!



NOW...Without a Large Initial Investment! HERE'S HOW

THE BLACK & DECKER VITRI-GLAZE SYSTEM

For as Little as \$11.30 a

- Your B&D distributor has a completely packaged payment plan!
 - Profit from only ONE job will make your monthly payment!
-
- Black & Decker has cut all the red tape.
-
- Your complete easy payment plan is all worked out.
-
- Just contact your B&D distributor—he'll start you off on increased Vitri-Glaze profits right away.
-
- The entire B&D Vitri-Glaze System is yours for as little as \$11.30 a month . . . no big cash needed.
-
- Your B&D distributor is in the 'phone book, in the Yellow Pages under "TOOLS-ELECTRIC"—or write: THE BLACK & DECKER MFG. Co., Dept. 3103, Towson 4, Md.



NEEDS NO BIG INITIAL INVESTMENT!...

Month, start to profit NOW!

What's Your Market Potential?

In 1956 there will be 61,000,000 vehicles on the road!

\$127,000,000 will be spent on car polishing!

The men who offer the *finest* car appearance reconditioning method will grab off the biggest portions of this money!

The B&D Vitri-Glaze System is the *finest* method ever perfected!

You don't need any large cash to get started with Vitri-Glaze!

You'll practically double your polishing profits on every job!

You'll handle nearly 3 times as many polishing jobs!

B&D helps you *get those jobs*—with free merchandising!

And the whole deal pays for itself in a very short time!

**EVERYTHING WRAPPED UP FOR YOU—TOOLS, MATERIALS AND MERCHANDISING,
EASY PAYMENT PLAN—AND POWER-BUILT TO BOOST YOUR POLISHING PROFITS!**

LOOK IN THE YELLOW PAGES UNDER "TOOLS-ELECTRIC"



Black & Decker®

PORTABLE ELECTRIC TOOLS

Your B&D Distributor Will Save You \$40 Right Now!

The complete Black & Decker Vitri-Glaze System,
everything included, is worth **\$358.50**

You pay only...\$318.50

AND REMEMBER, YOU PAY AS LITTLE AS \$11.30 A MONTH

**Pocket that big \$40 saving—and EXTRA PROFITS WEEK AFTER
WEEK—with the incomparable B&D Vitri-Glaze System!**



Plymouth V-8

Continued from Page 84

ments should be made after the engine has warmed up to normal operating temperature. Intake rocker arms should be adjusted to .012 in. and exhaust to .020 in. Adjusting screws are self-locking. The screw should have a minimum of 3 ft lb tension as it is turned. If less, the adjustment screw should be replaced—and if

required—replace the rocker arm.

Hydraulic Lifters

No adjustment is needed for this type due to the design of the plunger travel in the lifter. Design of plunger travel includes a safety factor for normal wear. When valves and seats are ground, the position of the valve in the

head is changed so as to shorten the operating length of the hydraulic tappet. This means that the plunger is operating closer to the bottom position and less clearance is available for the thermal expansion of the valve mechanism during high speed driving.

Oil Pan Removal

In order to remove the oil pan on 1956 V-8 models it is neces-



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GENUINE
BENDIX DRIVES**
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PARTS!



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Bendix Drive

ECLIPSE MACHINE DIVISION of **Bendix**
ELMIRA, NEW YORK

Export Sales: Bendix International Division, 285 East 42nd St., New York 17, New York

Tune-Up Specifications Quick Reference Table '56 Plymouth V-8

Bore and stroke:
Model 277: 3.75 x 3.13
Model 270: 3.63 x 3.256
Cylinder firing order:
left bank, 1-3-5-7
right bank, 2-4-6-8
Spark plugs, AutoLite Resistor
14 mm, set to .035 inch
torque to 30-32 ft. lbs.
Breaker arm tension: 17 to 20 oz.,
point gap, .017
Cam Angle: 26 to 28 deg.
Compression ratio: 8.0
Maximum brake hp. 240 at 4800 rpm;
recommended idle speed 450-500
rpm
Valve seat angle, 45 degrees
(both intake and exhaust)
Valve timing: intake opens 14 deg.,
BTC, and closes 50 deg., ABC.
Exhaust opens 52 deg., BBC and
closes 12 deg., ATC.
Normal oil pressure: 50 to 65 at 1500
rpm
Battery terminal grounded, negative
Electrical system: AutoLite
Hydraulic lifters with zero clearance
on the "270" engine
Mechanical Tappets on "277" engine
Set Exh. .020; Int. .012 in. hot
Timing marks location: crankshaft
pulley
Ignition timing: 4 deg. before TDC

sary to remove the following parts: starting motor, clutch housing dust cover, front and rear engine mount bolts, oil pan cap screws. Disconnect the tie rod idler arm bracket and lower tie rods. Place a jack between the converter housing and the lower control arm and push engine back toward rear of car about 1 in. to remove the oil pan.

"How did you learn to kiss like that?" asked the sweet young thing in ecstatic tones.

"Siphoning gas for this hot rod heap so I could bring you out here to lovers' lane," replied the high school lad.

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are available in 20', 30' and 40' cord lengths.

PRICES START AT
\$9.95



Cordomatic®

Dept. A, 17th & Indiana Ave., Philadelphia 32, Pa.

One Stop Service . . . Continued from Page 47

wheel balancing, and tire "truing" work is performed. Cars for service can also be taken into the general shop from this department.

All interior walls, in the entire building are finished in white glazed brick (tile-like in appearance) which makes good shop-keeping a very easy task. The out-

side of the building and the outdoor service area is well illuminated with spot and flood lighting after dark.

On the front (vee part) of the building is a large store like section, with 4 large plate glass windows, 2 on each side, and 2 doors for entry into the "Customer Reception" area. Here the many

parts are stocked and displayed in metal parts bins. Glass-front counters are placed in an "L" shape along the walls in front of the parts bins. Parts and accessories are displayed in the glass-front portions of the counters. There is also a large battery stand replete with batteries of assorted sizes.

An accessory display stand is in the center of the floor. This contains seasonal items, such as polishes, sponges, mirrors, bulbs, etc. As the seasons change, the items are changed. A large balcony across the back end of the store, provides space for an excellent tire stock and display. The private offices are also on the balcony.

The customer reception area contains large lounge chairs, placed around a table, containing the latest magazines and other publications for customer comfort and entertainment.

The shop layout is so designed, that all work flows smoothly and efficiently. There is little possibility of a "lube" job being steered into the Tune-up department by mistake. All cars for service are ticketed, and each vehicle is placed in the particular spot in the shop designated for the type of service it is to receive.

All lubrications and TBA service is handled in the 3 lube bays. The front end, wheel balancing, tire truing, and alignment is delegated to the "Front End" department of the shop. Next to this, is the "Brake" service; then in the following order, located in the general shop section is, Tune-Up and Electrical, and Carburetion. Engine, rear, transmission, and chassis work is performed in the shop area also. One section of the shop is set aside for Pa. State Inspection work.

Plenty of Equipment

There is a maximum of equipment to aid the efficiency of work flow. There are 2 wheel balancers, a complete front end machine, complete tune-up equipment, distributor tester, motor tester, lathe, tire truer, parts cleaning tanks, brake equipment, including a

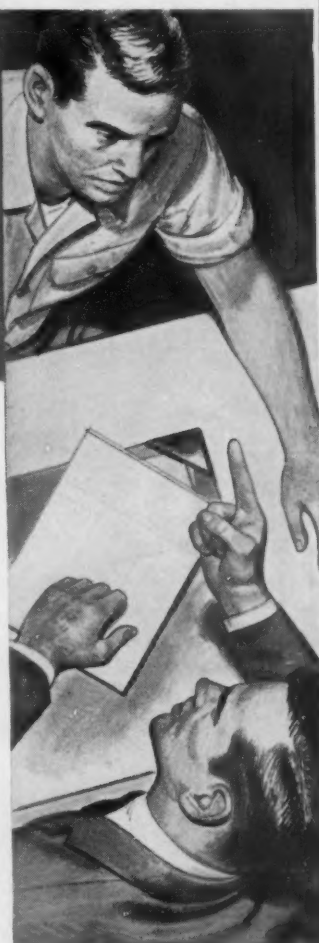
(Continued on page 94)

DON'T BLAME THE SHOP FOR COMEBACKS

it may be the equipment that's at fault

Over 200 "horses" pushing on 8 rods leaves no margin for guesswork. Rod journals and pin fits must be precision-perfect to transmit today's cylinder explosion loads of over four tons!

Sunnen Pin Fitting and Rod Reconditioning equipment is as up-to-date as today's high-compression engines. It will enable your men to do perfect jobs every time... and it pays for itself quickly out of extra profits in shop and parts business. For a demonstration, without obligation, simply send a postcard.





SUNNEN PROGRESS COMPANY
1918 Macmillan Ave., St. Louis 17, Mo.
Canadian Factory: Chatham, Ontario

For Your Protection Insist On Sunnen Measured Pin Fits

Snap-on **specials...**

LIKE THIS INEXPENSIVE DOOR HANDLE TOOL



— save you time and money

The *Snap-on* DHP-8A door handle tool provides mechanics and body men with a fast, easy way to remove door and window lift handles on General Motors cars. This inexpensive tool does the job in seconds . . . saving minutes and money every time it's used.

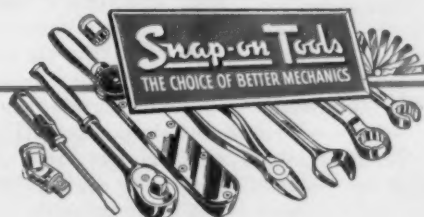
The *Snap-on* dealer who calls on your shop has a great many other specials available, each one designed to do some difficult-to-service job on late model cars — faster — easier — more profitably. It's regular procedure with *Snap-on* to introduce new specials to shop owners and mechanics. It's

Snap-on's way of helping you turn out more work while building greater good will with your customers.

It's good business to invite the *Snap-on* man, welcome him, endorse him. You'll be in good company — for in thousands of shops everywhere *Snap-on* is part of the crew. Service managers like him. Mechanics like him.

Talk to the *Snap-on* man the next time he calls. He'll explain how you can help put profit-making specials or standard *Snap-on* tools into the hands of all your mechanics.

*Snap-on is the trademark of Snap-on Tools Corporation.



SNAP-ON TOOLS CORPORATION

8036-C 28th Avenue, Kenosha, Wisconsin

One Stop Service . . . Continued from Page 92

drive-on type of tester. There are jackstands, floor jacks, transmission jacks, and all the other equipment needed to render complete quality service.

The Fischer Automotive Company runs a truly "One Stop" service. They render service from the sale of gasoline, oil, lubes and TBA, through complete engine

overhauls, transmission, rears, tune-up, electrical, and carburetion. All this is done on a large volume basis.

Due to the good shop layout, there is a minimum of time lost in "car jockeying." As each job is finished, if the customer is not waiting, the car is placed on the parking lot. As a result valuable

working space is not used for parking cars on which work has been completed.

The entire building is heated by a central oil-fired steam system, and utilizes blower units mounted at ceiling height. This same system is used for cooling in the summer by operating the blower units only.

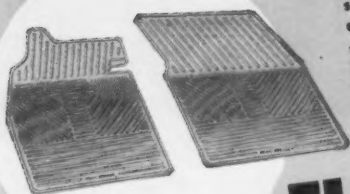
Order writing is handled on regular forms (job tickets) and this is accomplished through the use of "portable" form dispensing registers. This procedure provides all the important information relative to customers name and address, telephone number, make and model of car, and work to be done.

It also provides for the amount of parts used, their cost and the labor involved. Last but not least, it makes a permanent record of the entire transaction in the event there would be the need for future reference for any reason. All job tickets are kept in filing cabinets. All state inspection "job tickets" are kept in a separate file cabinet.

Tops Everything in Auto Floor Mats

FLOORKINGS

7 COLORS TO HARMONIZE

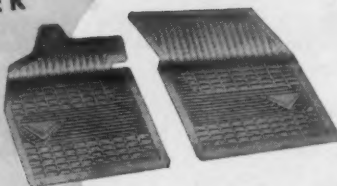


Sales come fast, profits come high, when you sell FLOORKINGS — the new sensation in the automotive field. Fits perfectly on both sides of the hump. Easy to remove for cleaning. In 7 rich, harmonizing colors: Emerald Green, Sky Blue, Coral, Alpine White, Ebony Black, Desert Tan and Blue Gray.

FLOORMATES

THE STEP-UP NUMBER

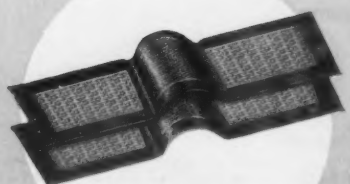
A handsome step-up number — the very finest in rubber floor mats. Made of heavy gauge rubber in a very interesting pattern where dirt is captured — where it "stays put". In 7 matching colors — packed in beautiful, descriptive carton.



MINUTEMATS

REAR COMPANION MAT
IN MATCHING COLORS

This is the popular one piece half mat that covers width of entire car. Protects original expensive carpeting against grease, wear, dirt and slush. To clean, simply lift out, shake and replace. Fits front and rear compartments.



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CLEVELAND 12, OHIO



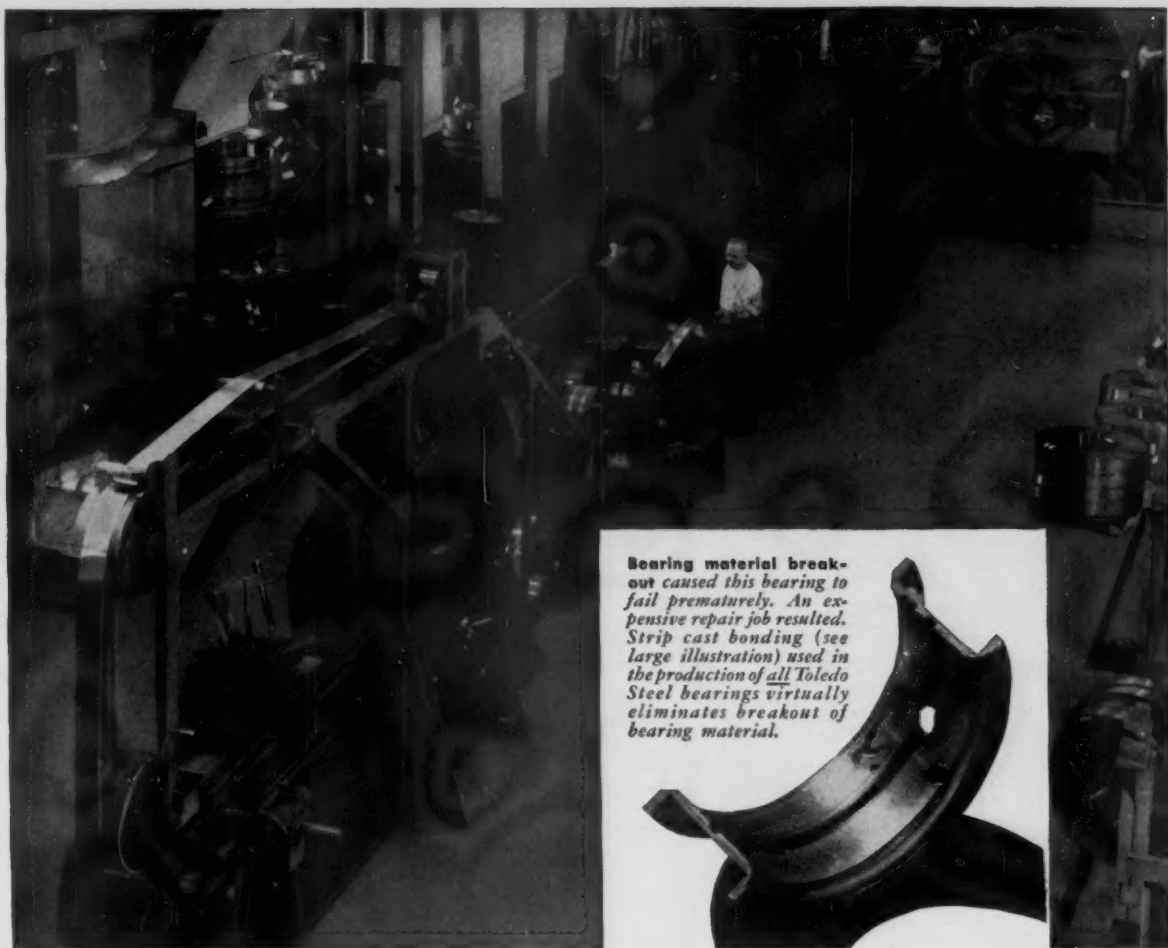
Rush hour: That hour during which traffic is almost at a standstill.

Dodge Producing New Sports Chassis

A new Dodge sports chassis was announced recently by William C. Newberg, Dodge President. The new "500" Chassis features a 260 horsepower engine, 12-inch brakes, and a lowered chassis with a sport type suspension. This model is in current production.

The chassis is available for the Coronet two-door sedan and Custom Royal two-door Lancer and Custom Royal convertible. However, on special order other body styles are available also.

The engine is of the double rocker arm, hemispheric combustion type, and boasts a compression ratio of 9.25 to 1. The air cleaner is of the low restriction type, and the four barrel carburetor has been modified with larger venturi. The intake manifold has an enlarged throttle bore. The engine displacement is 315 cubic inches.



STRIP CASTING OF TOLEDO STEEL BEARINGS VIRTUALLY ELIMINATES BEARING MATERIAL BREAKOUT

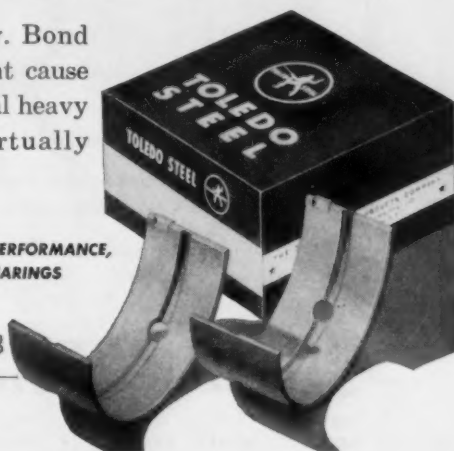
Superior bonding method chemically welds bearing materials to steel back

- The patented strip casting method used to bond bearing materials to steel backs in Toledo Steel bearings gives them greater fatigue strength and load carrying capacity. Bond breakdown—a prevalent cause of failure in conventional heavy duty bearings—is virtually eliminated.

FOR LONGER BEARING LIFE AND FINER ENGINE PERFORMANCE,
INSTALL TOLEDO STEEL CL-77 OR MICRO BEARINGS

TOLEDO STEEL PRODUCTS

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Division of Thompson Products, Inc.



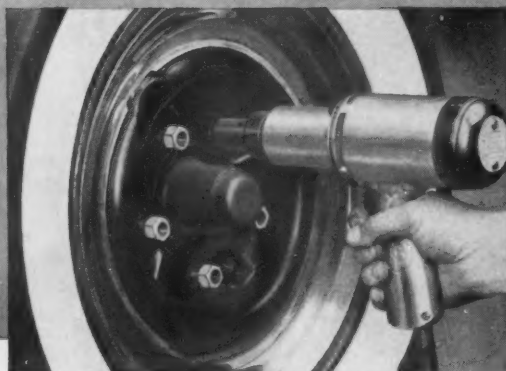
INTRO

the **New** *PACESETTER*

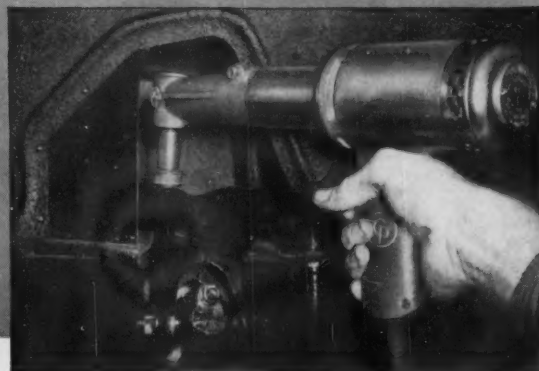
UNIVERSAL ELECTRIC IMPACT WRENCH

Never before has such a "wallop-packing" Electric Wrench been offered for such a low price! Only \$98.50 buys you a new Chicago Pneumatic PACESETTER ... the 1/2 inch square drive Universal Electric Impact Wrench whose bonus capacity matches most higher priced tools.

Grip a PACESETTER and put it through its paces, and you'll understand why car dealers and service stations can't afford to be without them! You'll like the reversible PACESETTER'S powerful ZIP as it whips off frozen, rusted bolts. You'll like its handling qualities, too. And its slim nose gives you room to maneuver it in and out of tight places. There's nothing like its exclusive ATTACHABLE ANGLE HEAD (*it becomes part of the tool*) for reaching around corners and permitting one-hand operation in blind spots.



The new PACESETTER spins hard-to-move wheel nuts off or on in a flash ... cuts "tire rotation" time 80%.



The exclusive ATTACHABLE ANGLE HEAD becomes an integral part of the PACESETTER to permit one-hand operation on ratchet wrench jobs.



Chicago Pneumatic

AIR AND ELECTRIC IMPACT WRENCHES • PNEU-DRAULIC TRUCK JACKS AND PUMPS • ZIP GUNS • BEAD BREAKERS

DUCING...

SET THE PACE

on tubeless tire business!



This WIRE BRUSH ATTACHMENT clamps to the specially designed nose section of the PACESETTER . . . converts it to a wire brush machine or a buffer.

CP-724 PACESETTER
1/2" SQUARE DRIVE



IN-HANDLE REVERSE SWITCH

permits the one hand that holds the wrench to snap it into reverse! An interlock prevents reversal when motor is running.

\$98⁵⁰

Chicago Pneumatic Tool Company, Dept. A-10
8 East 44th Street, New York 17, N. Y.

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a most dependable supply
of compressed air



Service managers and garage operators are finding that Ingersoll-Rand Type 30 Compressors perform so reliably that little attention is required—time saved for customer servicing!

These rugged air compressors are built to give you more air-per-horsepower. And, they are always ready to meet maximum air demands on the job.

When you check their exclusive design features—like the outstanding *Balanced V Construction*—you know why so many shops say they're the "*best buy of all for efficiency and value*!" Get latest details from your nearest I-R jobber or write to:

Ingersoll-Rand

3-350

11 Broadway, New York 4, N. Y.

Servicing Brakes . . .

Continued from Page 57

stall brake shoe return springs. Check tension of springs. It should be 70 pounds plus or minus 5 pounds, installed length. This can be checked by hooking a pull scale at the toe of the shoe and pulling the toe away from the wheel cylinder. The scale should read 35 to 45 pounds before contact is broken between web and shoe and wheel cylinder push rod.

Long end of brake return springs must be hooked in shoes, otherwise a brake noise will be present due to coil of springs contacting shoes. Install the brake shoe guide springs, making sure positioning lip of spring engages the hole in the support plate. Loosen adjusting cams and install hub, drum and wheel assembly. Bleed brake system, refill master cylinder and adjust brakes.

Brake Adjustment

The rear brakes are adjusted the same as older models. The forward rear wheel shoe adjusting cams are rotated in the direction of the forward wheel rotation. The rear wheel shoe adjusting cams are rotated in the direction of reverse wheel rotation.

On the front brakes turn each adjusting cam on both front wheels in the direction of forward wheel rotation until shoe lining is tight against the drum and wheel is locked. Turn adjusting cams slowly in the opposite direction (alternating the cams a little at a time) until no drag is felt.



HORN TOOTING: John Irwin (right), horn engineer for Delco GM's Delco-Remy Div., operates the new Delco-Remy mobile horn unit for P. W. House, assistant chief engineer.



Archie Butts, service manager of Jack Symes Motors, Inc., E. Walnut St., Pasadena, California, and John T. Abbott, owner of this Model 6107, 1942 Cadillac.

Cadillac owner reports on 14 years' experience with Union's purple motor oil



"I've used Union's purple motor oil exclusively in my Cadillac since I bought it new in December, 1941," writes Mr. Abbott.

"During this 14-year period the same service manager, Archie Butts of Jack Symes Motors, has supervised its maintenance. For this reason, it has been easy for me to keep an accurate record of this car's life and the many benefits of using Union's amazing purple motor oil.

"My 1942 Cadillac has now gone 115,000 miles, almost all of it stop-and-go city driving. Except for silencers and two slightly pitted valves, replaced at 103,000 miles, all engine parts including the other valves, bearings, pistons, rings, rods, etc., are the original parts. Inspection at this time showed a minimum carbon and cylinder wall taper, no gumming or undue valve stem wear.

"Compression pressures at starter speed currently run from

110 to 120 PSI, only slightly below factory specifications for this engine when new, and oil consumption has increased only 8% in the last 40,000 miles. Based on my 14 years' experience with the purple motor oil, I'll agree that Royal Triton is all that's claimed for it—the *finest by far*."

Unlike Mr. Abbott, few service customers concern themselves in such detail with motor oil. But they *do* want an oil that gives their car peak performance with overall economy. Royal Triton does this... that's why it's such good business to stock and recommend this *amazing* purple oil to all your service customers. Available in all popular grades including 5-20 and 10-30.

UNION OIL COMPANY
OF CALIFORNIA

76

Los Angeles: Union Oil Bldg. • New York: 45 Rockefeller Plaza • Chicago: 1612 Bankers Bldg. • Philadelphia: Eastwick Ave. & Edgewood St. Dallas: 313 Fidelity Union Life Bldg. • Kansas City, Mo.: 612 W. 47th St. New Orleans: 644 National Bank of Commerce Bldg.

Nothing beats this extra-rugged to renew



*it's original equipment
on more cars, trucks
and buses than all
other makes combined.*



Packard "404" low tension cable electrical performance!

Put the electrical system of a customer's car back in new car shape and you've got a happy customer. So, why replace worn cable with a substitute when you can *renew* performance with Packard "404" low tension cable?

That's right—*renew*! Use the cable that withstands cable-damaging conditions as no

other cable can, because of rugged "404" insulation—developed by Packard research specifically for automotive use.

This is the same low tension cable that is the largest selling original equipment cable of its kind.

Because of this tremendous volume, initial cost is low. And,

because Packard offers you the fully packaged and complete line, you get the extra advantages of a single source—lower accounting and inventory costs, and quick deliveries.

It pays to stock the fast-moving cable. It pays to stock Packard Cable, the original equipment line that outsells all other makes combined.

FOREMOST BUILDER OF
AUTOMOTIVE WIRING

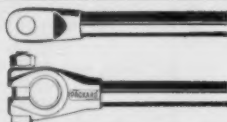


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BATTERY CABLES

Special design gives full starting power, extra flexibility and strength. Additional features at no extra cost make replacement easier, deliver top electrical performance.



LOW TENSION CABLE

Stranded copper conductor covered with tough coat of Packard "404" plastic. Small diameter, highly flexible and wear resistant.



HIGH TENSION IGNITION CABLE

Packard "440" and TVRS high tension cables continue to be used on more vehicles than any other similar-purpose cables.

Fuel Injection Continued from Page 49

the plunger lifts further, the spill ports are covered by the sleeve and fuel is then forced through delivery valve (J) and out through distributing slot (G) to a nozzle line. Injection continues to the end of the stroke and the cycle repeats for an adjacent outlet.

Mounted directly on the pump, the control unit receives control

pressure from the mixture control through tube (K) and translates it through link (C) and lever (D) into an angular movement at the metering shaft of the injection pump. At high control pressure corresponding to low manifold vacuum (wide open throttle) piston (A) is moved down in cylinder (B) toward maximum fuel position by

outer spring (E). As engine speed increases, the control pressure is reduced and piston is forced upward against spring (E) at a constant rate until free inner spring (H) reaches its seat at which time this spring adds its effect to spring (E) and the rate of piston travel with change in control pressure is reduced. Thus fuel quantity injected per stroke is a function of control pressure applied to the piston.

During deceleration, full or partial cut-off of fuel flow to eliminate unburned exhaust gases can be automatically accomplished by several methods. One method (not shown) employs an auxiliary piston carried within control piston (A) and biased by a low-rate spring. During normal operation from idle to full throttle, this auxiliary piston moves with piston (A) as a unit. However, when engine deceleration occurs, the piston moves upward within piston (A) and the fuel pump metering lever is moved to the fuel cut-off position.

6 NEW TIME SAVING TOOLS to make money for you!



Each year's new models make your job more difficult. Today more than ever the right tools will save hours of time plus parts and reduce unnecessary delays. These are only a few of the many outstanding OTC special tools that do tough jobs fast.

DISTRIBUTOR LOCK NUT WRENCHES



A new set of five distributor lock nut wrenches fit practically all '55 passenger car models. Make an otherwise tough job simple.

OVERHEAD VALVE TAPPET ADJUSTING TOOL



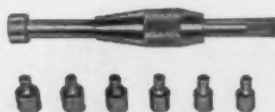
Adjust overhead valve tappets with any 1/2" square drive socket. Easy to use with handle set at 15° for clearance over hot manifolds and other obstructions.

CHRYSLER DOOR HANDLE REMOVING TOOL



New door hand window crank removing tool for all Chrysler built cars. A terrific time, money and temper saver.

UNIVERSAL CLUTCH ALIGNING SET



A special set of tools designed to align single disc clutches on any passenger car or truck. Eliminate time and effort of tearing apart transmissions.

HEAD BOLT WRENCHES



Twelve new head bolt wrenches carefully designed, forged and heat treated to do a precision job of torquing head bolts on a wide variety of auto, truck and tractor engines.

OIL FILTER RATCHET BOX WRENCH



Handles oil filter service jobs on most late model passenger cars. Fully heat-treated highest quality alloy steel with thin ratcheting action head and double hex 12 point opening for sure handling in cramped quarters.

Mixture Control

The mixture control in its basic and simplest form is merely a manifold pressure control and throttle-body with a chamber feeding a modified manifold pressure to the injection pump control during cold starting and idling.

In this sectional view of the mixture control, the throttle plates mounted on shaft (B) are not shown in order to portray more clearly the other parts of the unit. The throttle plates are of conventional design with an idling port just above the closed throttle position and connected to passage (M) which enters control chamber (O) formed in the throttle-body casting. This chamber connects at (S) with the injection pump control.

Idle air flow is adjusted in the usual manner by screw (E). The idle mixture is adjusted by screw (K) which at idle receives inlet air pressure through idle slot (M) and modifies the control chamber pressure. Above the idle setting, the throttle plate edge rises above the idle port; the idle port becomes manifold pressure and screw (K) has no effect on engine mixture.

(Continued on page 111)


See your jobber or write us

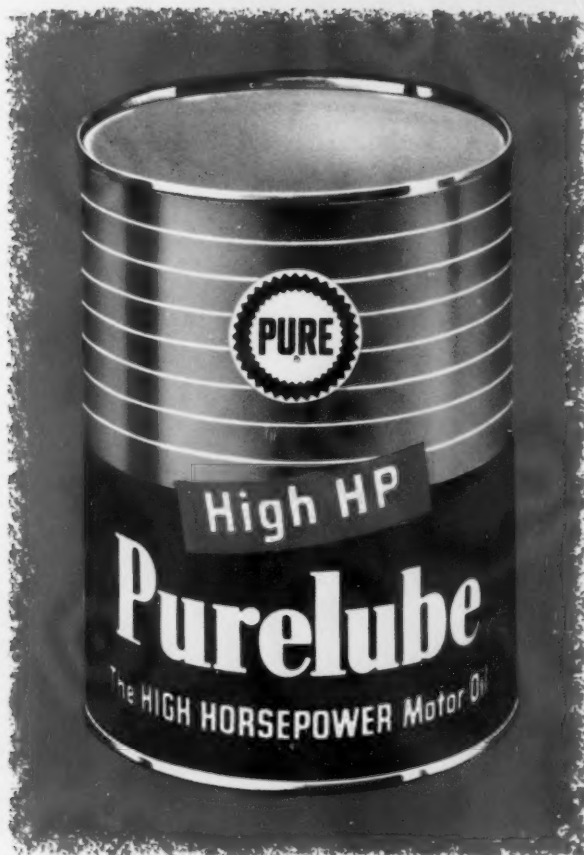
OWATONNA TOOL COMPANY
321 CEDAR STREET • OWATONNA, MINNESOTA



**The wrong kind of motor oil can make
any new car customer snarl like a panther**



Here's how **High HP Purelube**
keeps high horsepower high ...
and customers satisfied ... 



High HP . . .

cuts octane requirement increase . . .
reduces wear . . . fights pre-ignition . . .
stretches gas and oil mileage

As soon as one of your high horsepower cars starts to lose power, you've got a dissatisfied customer on your hands. That's why you should specify High HP Purelube—the high horsepower motor oil—for every car you sell and service.

High HP contains an exclusive additive combination that cuts combustion chamber and spark plug deposits. It fights pre-ignition and reduces ORI (octane requirement increase) to keep new-car power longer. Gives maximum life to valves and plugs.

High HP protects vital cam shafts and valve lifters from power-robbing wear, too. Keeps lifters clean, quiet and efficient. Gives complete protection against rust and corrosion.

And because High HP is a superior multi-grade oil, it increases gas mileage by reducing friction. Cuts oil consumption by its resistance to heat. Helps get more power out of premium or regular gas.

So make your customers *smile* instead of snarl. Give 'em High HP Purelube to keep that high horsepower high!



Sales offices located
in more than 500 cities in
Pure's marketing area



Be sure with Pure

NOW! the steam cleaner
you have been waiting for...

the **ALL NEW**

"Twelve Fifty"
Series
HYPRESSURE
Jenny



Your Jenny Distributor offers it
on easy terms, with trade-in allowance
for your old steam cleaner.

You'll be glad you waited
for the ALL NEW "Twelve
Fifty" Series Hypressure Jenny to modernize your
steam cleaning operation, because it has many features
that guarantee faster and more effective cleaning at
lower cost. Here are but a few of "Twelve Fifty's"
advantages:

- Quiet, slow-speed, short-stroke pump; less wear; longer life; disc check valves—no adjustments; delivers a full 120 gallons per hour *at any pressure*.
- Instant starting—instant steaming. Full cleaning power in less than a minute!



- Sturdy compact design. Never before has Hypressure Jenny packed so much cleaning power into such small space.
- Hinged machinery cover affords easy and complete access to all working parts.
- Remote control—automatically shuts off pump and burner when operator closes valve on cleaning gun—saves time, fuel, compound, water and electricity.
- Cleaning power booster—stirs and preheats solution.
- Hose rack on cover, and rubber-tired wheels make it easy and convenient to take a new "Twelve Fifty" to the cleaning job.

Get full particulars on the best "Twelve Fifty" Model
for your needs. Mail the coupon now. No obligation.

HYPRESSURE JENNY DIVISION
HOMESTEAD
VALVE MANUFACTURING COMPANY
"Serving Since 1892"
P. O. BOX 95 CORAOPOLIS, PA.

Send full particulars on the ALL NEW "Twelve Fifty" Series
Hypressure JENNY.

I am interested in: ☐ Jobber Time Payment Plan
☐ Trade-in Allowance

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Company _____

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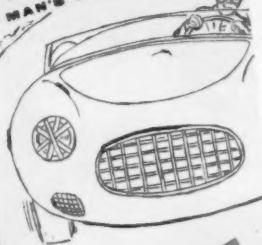
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The Saturday Evening
POST

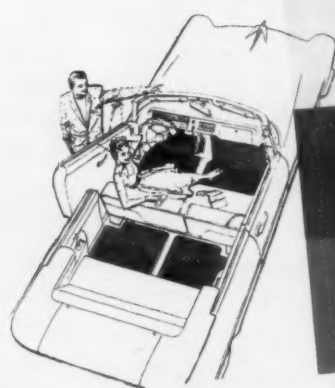
ORIGINAL...GENUINE

Stylemaster **KAR-RUGS.**
by Rubbermaid

TRUE
THE MAN'S MAGAZINE



SPORTS
ILLUSTRATED



PROTECT YOUR CAR FLOOR...
DRESS UP MODERN INTERIORS WITH THESE
9 beautiful colors

Your car floors stay new, protected from wear, dirt and mud stains. Beautiful Stylemasters stay colorful because they're so easy to remove, shake out and replace clean.

Get the original... genuine Stylemasters... engineered to fit all cars and stay in place without sliding.



Look for these colorful boxes at your dealer, gas or service station.

THE WOOSTER RUBBER CO. - Automotive Division - Wooster

THE *Only* **NATIONALLY**

the finest in automobile floor mats

Stylemaster **KAR-RUGS** for front floors



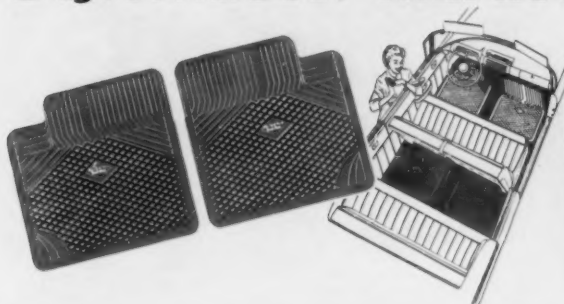
The newest, hottest item in accessories today! Engineered tailored look . . . with all the easy clean features. Fits . . . and stays in place . . . in all cars. 9 rich, clear colors in best quality rubber.

Set No. 8465 Retail \$6.95



Sales compelling box

Stylemaster **KAR-RUGS** for rear floors



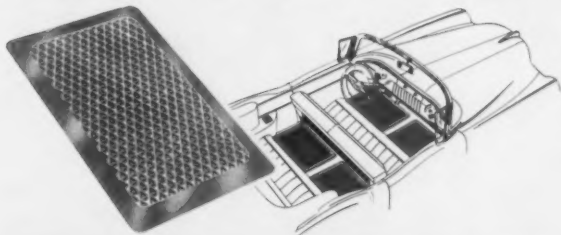
Now . . . matching beauty and utility for rear floors. Full floor protection . . . extends under front seat. Colors match front Stylemasters.

Set No. 8461 Retail \$6.95



Makes attractive mass display

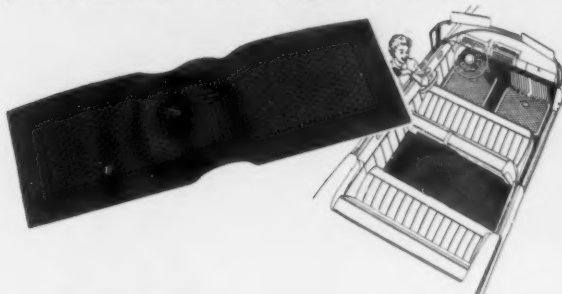
Rubbermaid **KAR-RUGS** for all floors



The always popular "original" accessory for floor protection. Famous Rubbermaid quality in familiar diamond design. Get in the mat business with a good assortment. 9 colors including new turquoise and white.

No. 1452 (small)	16" x 18"	Retail \$1.49
No. 1454 (medium)	18" x 21"	Retail 1.89
No. 1455 (medium)	15" x 25"	Retail 1.89
No. 1459 (large)	18" x 26"	Retail 2.29

Rubbermaid **KOVER-ALLS** for rear floors



NEW . . . highest quality contour mat for one piece coverage. Exclusive diamond design with attractive rib border that may be trimmed to fit all cars. Engineered to hug floor and stay in place. This will be a volume item. In 6 colors.

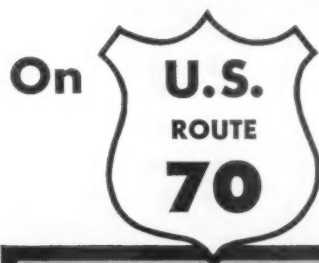
No. 1450 Retail \$4.98



Keep stocks fresh and clean

ADVERTISED AND PROMOTED LINE I

THE WOOSTER RUBBER COMPANY • AUTOMOTIVE DIVISION • WOOSTER, OHIO



On

**U.S.
ROUTE
70**

**"Thanks to Solex, I feel better
at the end of a trip"**

says Robert Kirk, Memphis, Tenn.



U.S. Highway 70 runs west through Memphis. It's a scenic route, but there's plenty of heat and blinding glare. Solex takes the sting out of the sun because it cuts down the solar heat and glare entering the cab. Makes driving easier and more pleasant.

Mr. Kirk drives for Campbell 66 Express, Memphis terminal. During the past 20 years he has driven trucks equipped with regular clear glass and with Solex® Safety Glass. We asked him how he likes Solex.

"My eyes used to burn and ache at the end of a trip," said Mr. Kirk. "Since the boss put Solex windshields in my cab most of the strain on my eyes is gone. Solex keeps heat out of the cab, too."

To prove his point Mr. Kirk says, "When I buy a new car I'm going to see that Solex is installed all the way 'round."

Solex reduces the amount of solar heat and glare entering the cab. It makes for more comfortable and relaxed driving—more alert and safer drivers. These considerations make it worth your while to get Solex Safety Glass in all your new equipment, and to replace the glass in

your present trucks with Solex.

You can get Solex in the well-known types of Pittsburgh Safety Glass—Duplate® and Duolite®—as well as in Herculite® and conventional plate glass. For more information write to Pittsburgh Plate Glass Company, Room 6112, 632 Fort Duquesne Boulevard, Pittsburgh 22, Pennsylvania.



SOLEX *"the best glass under the sun!"*



PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

You can't miss!

WHEN IT'S A
METALITE®
FIBRE DISC!



GREEN-BAK



BLUE-BAK



OPENKOTE

They're all tops in performance

when they're



BEHR-MANNING

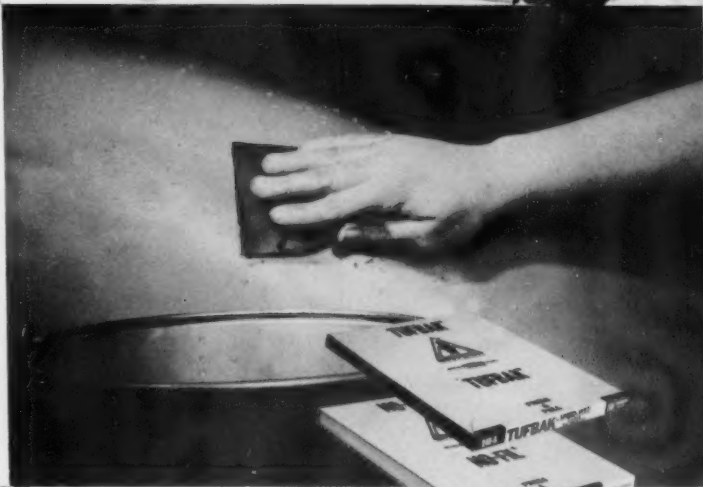
... and you can't miss
with these other
BEHR-MANNING products



BEHR-CAT MASKING TAPES that give you more benefits than you ever thought possible. They're carefully inspected to give you perfect performance. They unroll easily, go on fast, flex for curves, hug contours, stay put, resist underspray, prevent build-up, and strip fast without residue, giving you a perfect job.

BEHR-CAT COATED ABRASIVES that give you the fastest, smoothest sanding jobs you can imagine. From coarse heavy-duty discs to the finest waterproof sheets, plus the widest range of intermediate grits, they're tops for every step of body repair. They give you maximum performance at minimum cost.

BEHR-CAT ADHESIVES & SEALERS that give you the most trouble-free stickum on the market. There's a complete line to fix every nook and cranny. You and your customers will both be happy because they won't be on your back with a leaky windshield, drafty cowling, or body noises. You apply them once and that's it.



BEHR-MANNING

TROY, N. Y.
division of NORTON Company

▲ COATED ABRASIVES ▲ SHARPENING STONES ▲ PRESSURE-SENSITIVE TAPES

Fuel Injection Continued from Page 102

Since a cold engine requires excess fuel during the warm-up period, the control pressure must be raised to increase pump delivery. This is accomplished by the adjustment of valve (F) which operates within a passage between upper (atmospheric) and lower-deck (intake manifold) pressures. This valve, connected through pin (H) and eccentric shaft (C) to a lever which also carries a fast-idle cam (D) is actuated by a modulating valve actuator controlled by exhaust heat.

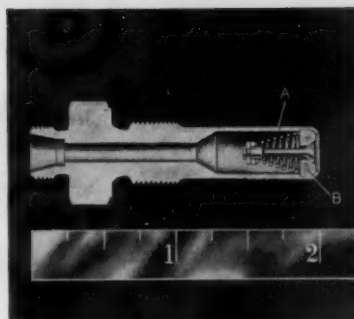
During normal engine operation valve (F) is seated at position (P) so that chamber is that of (T) or manifold pressure. During cold engine operation, valve (F) is in the position shown (between V and T) which modifies manifold pressure to pump control and the injection pump delivers additional warm-up fuel to the engine until valve (F) reaches position (T).

In order to insure a good cold-starting of the engine, a fuel flow considerably greater than the full-load quantity is required. This is accomplished by utilizing the supply fuel available at a pressure of 20-30 psi as a primer. A spring-loaded priming valve (J) mounted adjacent to warm-up valve (F) is held normally closed on its seat against fuel supply pressure by a spring. An extension on valve (J) engages in a slot in valve (F) so that in the cold position a slight additional movement of shaft (C) allows valve (F) to engage priming valve (J) and open it. Fuel then is discharged into the control chamber and enters the intake manifold through passage (T). The additional movement of shaft (C) necessary to actuate the primer valve (J) may be furnished conveniently by a small solenoid acting through the heat-responsive element and energized by the electric starter circuit. By having the primer solenoid act through the heat-responsive element, priming is prevented on any hot restart.

Injection Nozzle

The spray nozzle used is a simple outwardly opening poppet type and

consists of a valve assembly (B) rolled into a holder (A) which is available in several lengths to satisfy the various engine and manifold requirements. Opening pressure is a nominal 70 psi with atomization excellent at all fuel quantities due to the floating and self-aligning pintle action.



Injection Nozzle

"\$13,904"

In only 9½ months

SERVICING RADIATORS!"

Says . . .
McCain-Richards, Inc.,
Monroe, La.

INVESTIGATE THE HUGE PROFIT POTENTIAL IN AN INLAND RADIATOR DEPARTMENT!

"Our radiator department took in \$13,904.14 from April 11th through the following January! We find that, in addition to helping us maintain 100% service absorption, when we pull a radiator off a car we have excellent opportunities to sell motor exchanges, overhauls, radiator hose, water pumps, and other related items!"

Few automotive services offer such a potential for new and expanded business. Of the 60,000,000 vehicles in the U. S., over 20,000,000 require radiator service yearly. Inland-developed equipment allows Inland-trained operators to employ highly profitable production methods. And Inland, world's largest manufacturer of radiator servicing equipment, offers the only complete package—equipment, free training and merchandising!

LITTLE SPACE REQUIRED

"Our radiator department took in \$13,904.14 from April 11th through the following January! We find that, in addition to helping us maintain 100% service absorption, when we pull a radiator off a car we have excellent opportunities to sell motor exchanges, overhauls, radiator hose, water pumps, and other related items!"

Few automotive services offer such a potential for new and expanded business. Of the 60,000,000 vehicles in the U. S., over 20,000,000 require radiator service yearly. Inland-developed equipment allows Inland-trained operators to employ highly profitable production methods. And Inland, world's largest manufacturer of radiator servicing equipment, offers the only complete package—equipment, free training and merchandising!

FREE TRAINING SCHOOL

Practical factory school trains you or your man quickly. Cleaning, repairing, recoring, pricing, merchandising—everything! Hundreds of graduates now expert radiator repairmen. FREE to Inland customers!

MAIL TODAY!

New free 48-page "Blueprint for Profit" gives you experiences of many of the thousands all over the nation making an EXTRA \$8,000 to \$15,000 a year, details and prices of required equipment, Inland's "Pay-For-Itself" payment plan. Invest a minute to mail the coupon—the rewards can be amazing!

INLAND MFG. CO., Dept. MA-3
1108 Jackson St., Omaha 2, Nebr.

Please send new free booklet "Blueprint for Profit"

FIRM _____ PLEASE PRINT

ADDRESS _____

CITY _____ ZONE _____ STATE _____

BY _____ TITLE _____

If Dealer, make of car sold _____

Are you now operating a radiator shop ☐ Yes ☐ No

INLAND Mfg. Co., 1108 Jackson St., Dept. MA-3, Omaha 2, Nebr.

World's Largest Manufacturer of Radiator Servicing Equipment

"SOLD EXCLUSIVELY BY MAIL!"

Buzz's Business Continued from Page 51

ing. Most appealing to the woman customer is the relatively clean uncluttered appearance of the service area. For this reason the tire department is kept out of sight as far as possible.

Kilborn's tire recapping department is one of the finest and largest of its kind in Northern California. He has the very latest

equipment — buffers, tire truers and eight tire molds, capable of turning out 32 passenger recaps and 15 truck recaps in an eight hour day. In the past production has been tripled by working around the clock in shifts.

Another vital portion of his business is fleet service to commercial vehicles in Marin County.

He has five radio equipped trucks and one car, which enables him to operate with maximum efficiency. His radio transmitter antenna is located on a hill, and this provides him with 75 per cent radio coverage in the county.

He has two truck servicemen on the road continually and finds they are able to get important commercial vehicles on their way again with a minimum down time. In addition, his fleet service includes checking tires, taking pressure readings weekly and replacement of tires if necessary, but with the consent of the owner.



Your Working Partner for Profit

Your Niehoff partnership has a double profit advantage. First, warranted quality Niehoff ignition parts, designed for easy installation. Second, a 5-point merchandising plan to move them from your shelves: 1. A simplified parts catalog. 2. Part packages keyed to your catalog. 3. Attractive steel merchandise cabinets. 4. Automatic inventory system to keep you from being over or under stocked. 5. Regular factory mailings of Tune-Up Charts, signs and current price and service information. This time-tested 5 point Niehoff Sales-by-System plan can be a profit maker for you as it has for so many other Niehoff dealers. Ask your jobber or write today.



Danny Dollar Says... Stock • Sell • Install

C. E. NIEHOFF & CO.

Warranted IGNITION PARTS

4925 LAWRENCE AVE., CHICAGO, ILL.

Warehouses: 250 W. 54th St., New York 19, N. Y. • 1800 Fairmont Ave., Philadelphia, Pa. • 254 Brighton Ave., Boston 34, Mass.
2715 Main Street, Dallas, Texas.
Branches: 1330 W. Olympic Blvd., Los Angeles, 15, Calif.

Need for Specialists

Kilborn feels there is a need for tire, wheel and brake service specialists in most communities. When he started in the automobile industry in San Rafael 24 years ago, he had specialized in tire sales and recapping. But when he moved owing to expanding business he felt that wheel alignment and brake services were in reality part of the tire business, and therefore all could be taken care of in the one business.

He has worked out a system of cooperative advertising in his local newspaper through the rubber companies, and this gives him full page ads at regular intervals. These, in a rapidly expanding community, have unquestionably helped in providing him with a lion's share of the new business.

Since he moved into his new quarters his personnel has doubled to 17 in all. But his women customers are 20 times as many as he had in his former location.

Kilborn is confident that his business' greatest expansion is yet to come. He is convinced that the formula for success is to have as many friendly customers as possible.

The neighbors were complaining of the racket Mrs. Jones' husband was making. "All the time he goes around cackling like a chicken," they griped. "I know," Mrs. Jones said, "We get tired of it too. Sometimes we think he's not in his right mind."

"But can't you do something for him? Can't you cure him?"

"Oh, yes, I suppose we could. But we do need the eggs."

It's \$pring Again!



Purolator Oil Filter Check Time AGAIN!

Sold to drivers—your customers—in powerful 2-color, 2-page spreads in the Saturday Evening Post, April 7 . . . black-and-white ads, Look, April 3; Collier's, April 13. Provides unlimited

money-making opportunities throughout April—Spring Oil Change Time. Get bigger and bigger PROFITS on Purolator Micronic sales—on extra-quart oil sales with every filter change!

Money-saving warning from Purolator

It's oil filter check time now!



Save costly engine repairs! Protect that new summer-weight oil with a clean oil filter. With your Spring oil change, ask for a FREE OIL FILTER CHECK.

For instance, to know that dirty, worn-out oil is all that is going on when you change to clean, new summer oil, ask your service man for a free oil filter check before he puts in that new oil. If you find a new oil filter, ask for a new Purolator filter.



Proved best for every
PurO
OIL F

PUROLATOR'S BONANZA '56!

Here's the deal... LOOK IT OVER!

DEALER COST
\$35.52
DEALER PROFIT
\$25.16



PUROLATOR'S '56 BONANZA

We've cooked up a great program to increase your FILTER PROFITS... Backed up by PUROLATOR FILTER CHECK TIME in April... We'll help you move stock... Sell Big... Cash in on a great program

BONANZA Time AGAIN!

Biggest, most attractive deal in history! A handsome gift for everyone who gets aboard... Attractive new Purolator stock.

Four-Barrel Drive for sales!

Greatest in Purolator history! Magazine ads . . . Dealer helps . . . Big Bonanza . . . Publicity! See that you're stocked to SELL-AND-SHARE in this big event . . . DON'T DELAY. CALL YOUR SUPPLIER TODAY.



"Purolator" and "Micronic,"
Reg. Trade Mark U. S. Pat. Off.

PurOlator

America's No. 1 OIL FILTER

PUROLATOR PRODUCTS, INC., Rahway, New Jersey and Toronto, Ontario, Canada

Aligning Hoods Continued from Page 53

movement of the assembly forward, backward and to either side. Proper adjustment is made if the dowel is centered in the guide when the hood is closed. The auxiliary latch is automatically adjusted along with the plate.

Lock Dowel

Before any lock dowel adjust-

ments are made, be sure the rubber bumpers are properly set to allow a flush fit of the hood. When all other adjustments are completed, loosen the dowel locknut behind the mounting bracket. The dowel is shortened or lengthened by screwing it in or out. Shortening the dowel will pull the hood down tighter. Lengthening the dowel will

relieve any excessive tension on the hood when it is locked.

Lincoln Hood Assemblies

The overall layout, in regard to adjustments, on Lincoln hoods differs from Ford only in respect to the dowel locking assembly. The dowel is not located on the hood, as in the Ford. Instead, an auxiliary catch hook and lock release handle are attached to the hood and the dowel is engaged when the hood is closed. The lock dowel can be moved up, down or from side to side by loosening the cap screws. Proper adjustment is made when the dowel is centered in the hood lock assembly.

Mercury Hood Assemblies

Like Lincoln, Mercury has an auxiliary catch hook and lock release handle on the hood. The dowel can be lengthened or shortened and moved in four directions for centering and adjusting. In this case the dowel must be lengthened to ease tension on the hood and shortened to pull the hood tight. The only other difference is that the hinge bracket has only one adjusting bolt under the hood.

In all situations, if proper adjustment cannot be obtained by methods described here, it may be necessary to reposition the fenders.

All foregoing information applies to 1956 Ford Family cars. But, in general, these procedures will cover most makes or model cars.



big wheel

in the hose clamp field . . . that's AERO-SEALS — new quick-attach JET or REGULAR. They ignore the most severe vibration, never shake open! Precision worm gear drive means positive self-locking every time. Hose lasts longer, too, because AERO-SEAL's wide, smooth band provides even pressure around hose — no leaks! Stainless steel band resists corrosion, gives far longer service. Re-usable many times, AERO-SEALS are available in a complete size range for a variety of uses.

Insist on genuine AERO-SEALS for complete satisfaction, bigger profits, happy customers. Ask your jobber.



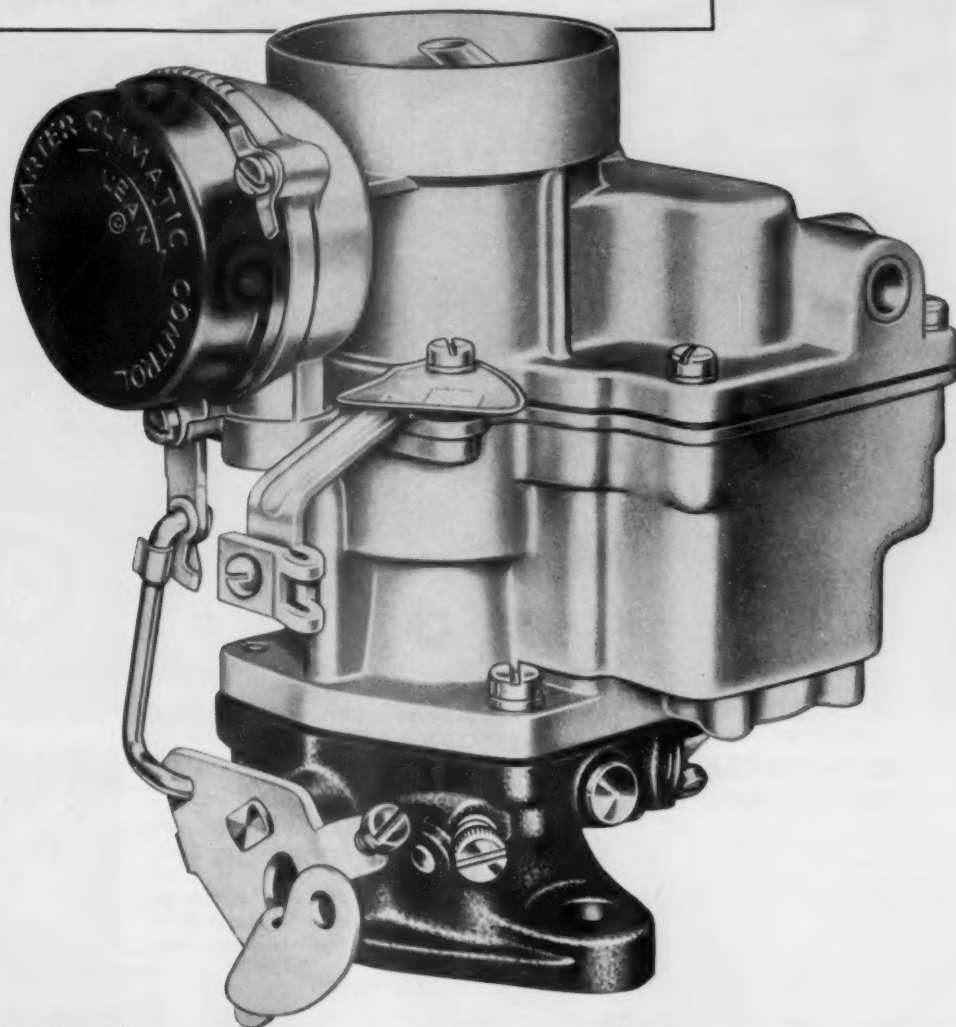
and AERO-SEAL REGULAR WORM GEAR HOSE CLAMPS

BREEZE CORPORATIONS, INC., 700 LIBERTY AVE., UNION, N. J.



The germanium transistor (left) replaces a vacuum tube (right) in the new transistor-powered set developed by General Motors Delco Radio div.

BIGGER opportunities...



WHEN YOU'RE THE MAN WHO STOCKS AND SELLS

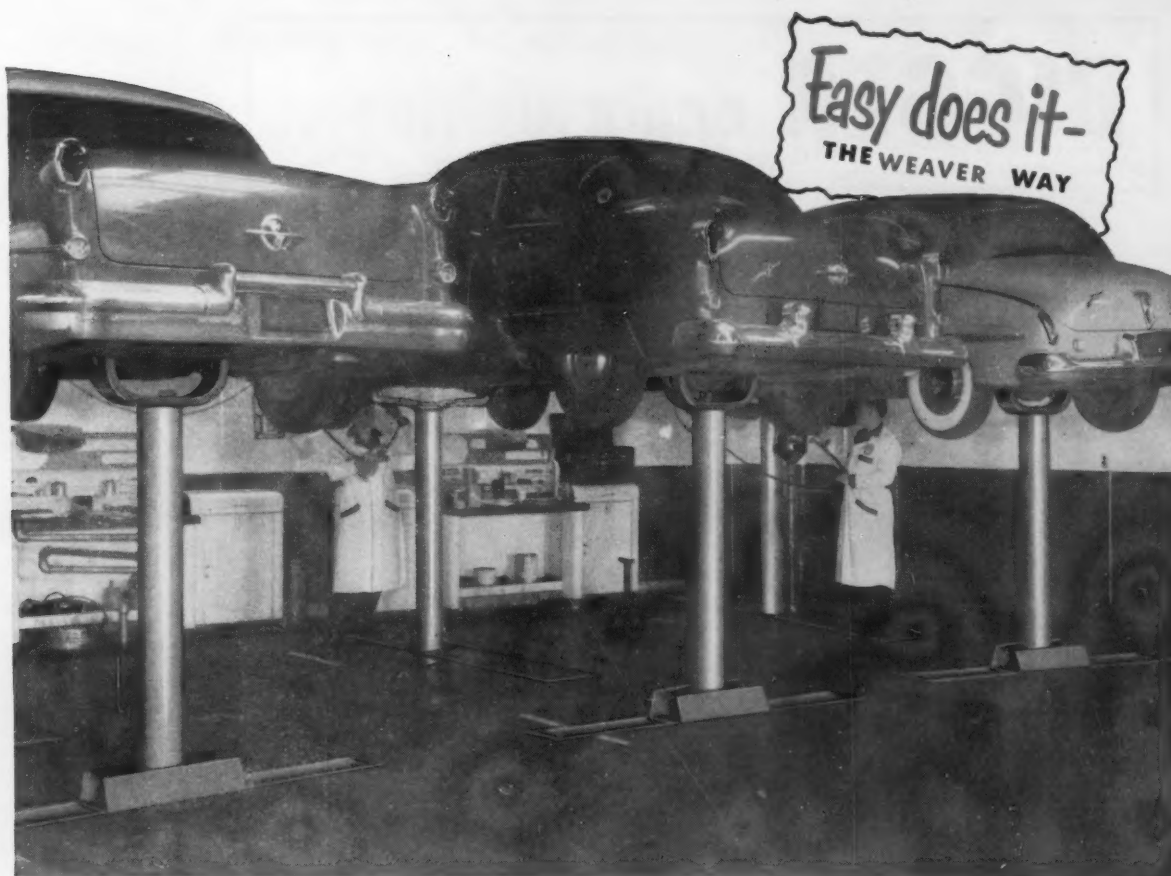
CARTER **CARBURETERS**

More than thirty-seven million cars on the road today are over 3 years old! Think how many of these in your community are in need of CARTER Power Center® Recarburetion.

CARTER tune-ups are easy for you to sell because CARTER products are nationally advertised... famous for their quality. For full details on this BIG profit opportunity, call your CARTER supplier.

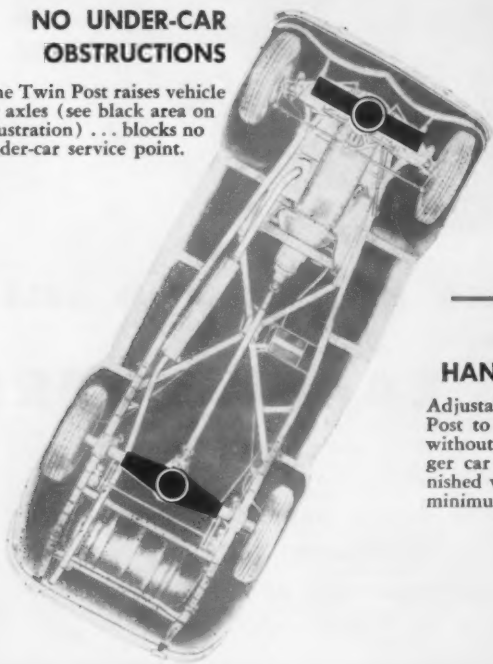


CARTER CARBURETOR CORPORATION, St. Louis 7, Missouri
Division of ACF INDUSTRIES, INCORPORATED



NO UNDER-CAR OBSTRUCTIONS

The Twin Post raises vehicle by axles (see black area on illustration) . . . blocks no under-car service point.



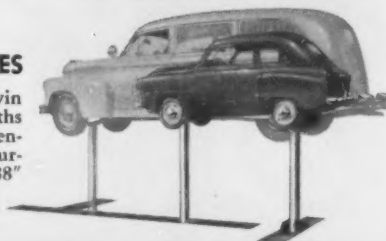
CONVENIENT CONTROLS

Located at floor level to permit operator to easily check contact of saddles with axles.



HANDLES ALL WHEEL BASES

Adjustable front post enables the Twin Post to handle all wheel base lengths without loss of lifting capacity. Passenger car Twin Posts are regularly furnished with wheel base capacity of 88" minimum and 148" maximum.



Write today for time-study proof of Twin Post superiority job-by-job. Ask for fact-crammed free booklet "HERE ARE THE FACTS." No charge or obligation of any kind.

WEAVER

WEAVER TWIN POST LIFTS

lead in under-car accessibility and working convenience

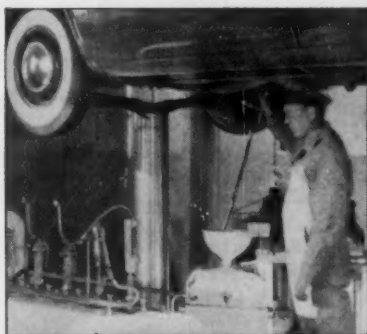
No other type lift on the market can match the Weaver Twin Post for under-car accessibility and working convenience. It lifts vehicles by the axles alone, giving mechanics free unobstructed access to every under-car point. There is no bulky superstructure to cause "blind spots"... no complicated positioning of adapters... no worry about varied wheel base lengths.

With a Twin Post, mechanics can quickly raise vehicles to convenient working height... position them at best working angle... roll tool stands within easy reach. This frees them from the drudgery of crawling, stretching, or stooping

... accelerates their working pace. Actual time studies on a wide variety of service jobs show that production increases from 25% to 100% when Weaver Twin Post Lifts are used instead of ordinary methods.

Consider how Twin Post efficiency could speed customer service... increase the amount of business you could handle... boost income and profits all around. These lifts are available in 3 sizes and 7 models to answer every need. Air-oil or electric-oil operated. Consult your Weaver Jobber today. Ask about buying on easy time payment plan.

A TWIN POST speeds production from 25% to 100%



LUBRICATION



MUFFLER



BRAKES

WEAVER MANUFACTURING COMPANY, SPRINGFIELD, ILL., U.S.A.

SERVICE SHOP EQUIPMENT

Complete Weaver line includes: Twin Post Lifts... Unit Lifts... Single Post Frame Type Lifts... Bumper Lift... Car Washers... Wheel Alignment Equipment... Headlight Testers... Brake Testers... Wheel Balancing Equipment... Jacks... Wheel Dollies... and Air Compressors.

Pop O'Neill Continued from Page 59

the broom to sweep up the snow Old MacDonald had knocked off his boots. He turned down the radiator and went back behind the counter to look over the morning's mail.

"Ain't you goin' to argue with me?" he muttered querulously.

"Nope."

"Can't you drop your price a

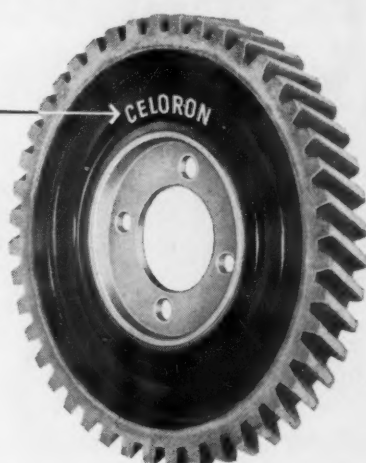
little? You know I've spent several dollars with you for charging this battery."

"I'm not running a discount house, Mac. I've discussed batteries with you for three months. You know my product and you know my price. I might give you one, but I'll be damned if I'll cut my price a red cent."

CELORON®

the
mark of
timing gear

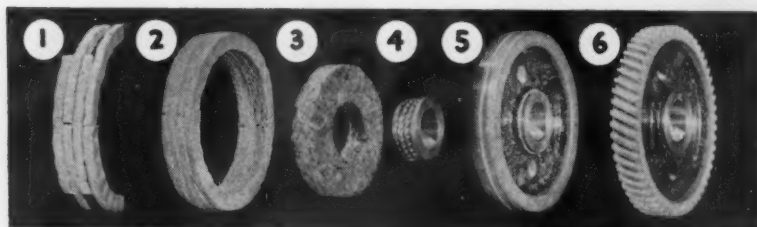
Quality



For more dependable rebuilt engines, use Celoron! Genuine laminated rim Celoron timing gears are always stamped CELORON, your assurance that your gear cutter is giving you the best timing gear made — at a reasonable price. Celoron gears are manufactured to high original equipment standards, have uniformly

high tooth strength. (No "cheaper" gear construction has ever met the automotive industry's requirements.)

Ask your gear cutter to send you laminated rim Celoron gears only. Their use gives you a better reputation, gives customers better timing . . . more confidence . . . longer service life!



HIGHER TOOTH STRENGTH, MORE FLEXIBILITY, GREATER IMPACT RESISTANCE result from the exclusive six-step Celoron manufacturing process:

1. A special grade of tough cotton is coated with phenolic varnish, then cut into strips and punched into segments. 2. These segments are staggered and piled up into the outer rim which will become

the gear teeth. 3. The web or inner ring is of macerated cloth — gives the gear its side flexibility. 4. The metal bushing is inserted and the make-up is put into the mold. 5. The resin softens, the coated fabric flows and fills the mold. On hardening, a strong Celoron gear blank is produced. 6. Your gear cutter then machines teeth into the laminated rim, supplies correctly-mating metal gear.



CONTINENTAL DIAMOND FIBRE

CONTINENTAL-DIAMOND FIBRE DIVISION OF THE BUDD COMPANY, INC.

NEWARK 3 DELAWARE

"Then I'll see you where batteries never freeze," the old man muttered and stomped out to his pick-up truck rattling away at the curb.

Pop O'Neill never even looked up, but he was smiling inside, like he does when he expects people like Old MacDonald to come back before the spring thaw. "When do you suppose people are going to find out that they get what they pay for?" he mused to himself.

Two days later Old MacDonald sent a rush call from the Farmers' grain elevator where he worked. "Hurry up," he yelled over the phone. "I'm stalled right on the railroad siding and the P and Q is trying to get a car into the spur to the elevator. I'm holding up the entire railroad."

"Be right over," Pop said, "but why in heck don't you push it off the tracks? It'll take ten minutes to get there with a tow truck."

"I tried that, you idiot. Think I ain't pushed for everything I got?



Pete's got rheumatism and the office manager's got a hernia. There ain't a man in the crowd!"

"Well, then flag down the P and Q and we'll be there." Pop laughed in spite of Old MacDonald and his predicament. "Well that's how not to start a new year," he said. "It's going to be a tough year on the railroads if this keeps up."

Larry, who had overheard the conversation from way back in the shop, was already warming up the

(Continued on page 120)



Helping to put the **POWER** in
Power Steering for Trucks, Buses,
Tractors, Construction Equipment



When it comes to power steering, heavy duty over-the-road and off-the-road vehicles have special requirements. Components have to be huskier, tougher, able to stand up under the constant demands of heavy duty operation.

To provide unfaltering hydraulic power regardless of operating conditions, Borg-Warner's Pesco Products Division has developed a remarkable power steering pump. An engine-driven, positive-displacement gear pump specially designed for heavy duty equipment, it features Pesco's exclusive "Pressure Loaded" bearings which automatically adjust for wear . . . minimum power requirements . . . minimum size . . . weight of only 6.75 pounds . . . self-lubrication . . . built-in pressure relief valve with standard setting of 750 psi.

Like all Borg-Warner products, the Pesco power steering pump was born of B-W's "design it better—make it better" tradition. In this way Borg-Warner serves industry with both creative engineering and large-scale precision production.

B-W Engineering Makes It Work

B-W Production Makes It Available



185 products
in all
are made by

BORG-WARNER

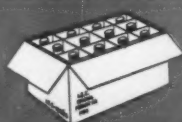
THESE UNITS FORM BORG-WARNER, Executive Offices, 310 S. Michigan Ave., Chicago. **DIVISIONS:** ATKINS SAW • BORG & BECK • BYRON JACKSON • CALUMET STEEL • DETROIT GEAR • FRANKLIN STEEL • HYDRALINE PRODUCTS • INGERSOLL CONDITIONED AIR • INGERSOLL KALAMAZOO • INGERSOLL PRODUCTS • INGERSOLL STEEL • LONG MANUFACTURING • MARBON CHEMICAL • MARVEL-SCHLEBLER PRODUCTS • MECHANICS UNIVERSAL JOINT • NORGE • PESCO PRODUCTS • ROCKFORD CLUTCH • SPRING DIVISION • WARNER AUTOMOTIVE PARTS • WARNER GEAR • WOOSTER DIVISION
SUBSIDIARIES: B-W ACCEPTANCE CORP. • BORG-WARNER INTERNATIONAL • BORG-WARNER, LTD. • BORG-WARNER SERVICE PARTS • LONG MFG., LTD. • MORSE CHAIN • MORSE CHAIN OF CANADA, LTD. • REFLECTAL CORP. • WARNER GEAR, LTD. • WESTON HYDRAULICS, LTD.

CORNWELL Electrolyte



For Dry Charged Batteries

MEETS ALL BATTERY
SPECIFICATIONS



12 Disposable 1 Qt.
Glass Bottles Packed in
Reinforced I. C. C.
Approved Carton

**GUARANTEED
AGAINST
BREAKAGE!**

Also Available in Special Export Wire-
Bound Boxes of Four 12-Quart Cases
Write Nearest Sales Office
for Quotations. Dept. MA-3

Cornwell Chemical Corp.

Executive Offices: 24 East 38th St.,
New York 16, Murray Hill 3-0174
Sales Offices: Cornwells Heights, Pa.
(Philadelphia), Cornwells 0700—
ORchard 3-2088; 744 Broad Street,
Newark, N. J., Market 4-2776

Pop O'Neill Continued from Page 118

tow truck. He threw in a tool kit and checked to see if the odd spare parts were still in. "This is just like 'The Late Show'," he laughed as Pop opened the doors to let him out. "See you—if the Spur Line stops in time."

Larry found Old MacDonald behind the Hudson, pushing. Pete was sitting at the wheel to steer in case she moved. The office manager was watching nervously and the engineer was leaning out the cab grunting for him.

A quick push and the bottleneck was over.

"Must be that new battery," Old MacDonald said when he had caught his breath and retrieved some of his lost dignity. "Maybe I should'a put a generating plant in this thing."

"You've got some bad points there," Larry said.

"I think it's a damned good point," the old man sputtered, "and if you think I'm sorry I didn't buy a battery from Pop O'Neill . . ."

"The ignition points, Mac. And your new battery didn't do it. This pitting took place while you were driving around with low voltage with the old one. Happens all the time and especially in winter when people try to get too much mileage out of a bad battery. That's when you use the starter and the lights so much, and there's a lot of drain on it."

Old MacDonald walked back to the elevator to direct the unloading of the car while Larry installed a new set of contacts. He drove the Hudson back to the

parking lot and headed on back to the shop.

"Just points," he told Pop. "That old battery had wreaked its toll, but now Mac is pretty put out because he can't blame us for the damage."

"He'd be put out if he wasn't put out, the old reprobate," Pop said. "Why if his thrift goes to any more heights, he's going to be bankrupt."

"Well, guess that puts him in pretty good shape for the winter anyway," Larry said.

Pop finished the ticket. "Maybe—maybe not," he said darkly.

And it didn't. When Old MacDonald came by to pay the bill a month later, he couldn't get the car started. He sat glued to the steering wheel fighting away at the balky starter while Pop chewed on his cigar in the window.

"Must be the gasoline," the old man muttered. "New battery, new points, all this service I've been gettin' around here. All this money I've spent and all it gets me is back to a garage—stalled. This is the second time I've had this new one recharged. Why sittin' here with a bum battery in front of Pop O'Neill is little better than facing that switch engine on the side track."

Pop went out to check. "Push it in the garage where it's warm," he told Larry. "There's something fishy here."

They did. Larry got out the hydrometer and verified the weak battery. He put a hot shot on it to

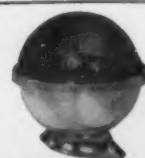
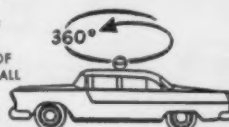
(Continued on page 122)

Buy Bonds



Sensational! New! 360° REVOLVING LIGHT

- ★ FREEZE-PROOF
- ★ WATER-PROOF
- ★ FADE-PROOF
- ★ TROUBLE-PROOF
- ★ EASY TO INSTALL OR REMOVE
- ★ MADE LIKE A FINE WATCH
- ★ BUILT FOR YEARS OF SERVICE



**HI-BALL
TRIPPE**

For wreckers, ambulances, emergency vehicles of all types here is the most eye-catching and effective light you can buy. The price is VERY LOW!

Write or Wire for Beautiful Catalog or Call Your Jobber

TRIPPE MFG. COMPANY
133 N. Jefferson St.

Dept. F
Chicago 6, Illinois

More than a hundred million
hydraulic valve lifters in use...



... A MUSHROOMING
REPLACEMENT
MARKET

yours with
"NO-LASH"
HYDRAULIC
VALVE
LIFTERS

AVAILABLE
PROMPTLY
FROM
YOUR



SUPPLIER



Every day the automobile production lines are adding to the vast total of hydraulic valve lifters already in use. Lifters get no rest. They must work constantly and quietly at a precise job. And "NO-LASH" Hydraulic Valve Lifters are precision engineered to meet such demands. They will give you customer satisfaction in your replacement service work. And, of course, they're available for practically every make and model of lifter-equipped engine. Standardize on the "NO-LASH" line and get set to handle this growing business on the *right* basis.

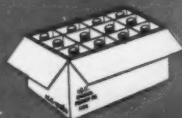
MANUFACTURED BY DIESEL EQUIPMENT DIVISION
DISTRIBUTED BY AC SPARK PLUG • THE ELECTRONICS DIVISION OF GENERAL MOTORS

CORNWELL Electrolyte



For Dry Charged Batteries

MEETS ALL BATTERY SPECIFICATIONS



12 Disposable 1 Qt.
Glass Bottles Packed in
Reinforced L.C.C.
Approved Carton

**GUARANTEED
AGAINST
BREAKAGE!**

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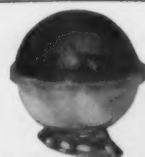
(Continued on page 122)

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More than a hundred million
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... A MUSHROOMING
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yours with
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HYDRAULIC
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MANUFACTURED BY DIESEL EQUIPMENT DIVISION
DISTRIBUTED BY AC SPARK PLUG • THE ELECTRONICS DIVISION OF GENERAL MOTORS

Pop O'Neill Continued from Page 120

start the car. And he started for the volt-ammeter, sure this time of getting at the bottom of the "short" that was giving Old MacDonald so much trouble.

"Wait a minute," Pop called, looking at the instrument panel. "This is one time when I don't believe we need much instrumentation. I can see from here why that

battery is running down. It's not charging. Let's look at the battery, see if it's installed correctly."

Pop smiled. "This battery is in backwards. That causes the points to burn in the regulator to become inoperative."

Larry looked over his shoulder. He examined the light on the dash showing no charge. He scratched

his head. "I know what you're thinking," he said. "And things are beginning to add up with me. I know that would account for the burned points and the constant running down. But we haven't checked it yet. How do you know that?"

"Cause I'm using my eyes. Why don't you?"

"But you're always telling us not to jump to conclusions, and you can't tell on this car with the light in place of the ammeter. Are you guessin' this time, Pop?"

"Nope. I'm not looking at the charging signal. I'm looking at the fuel gage. It ain't working—and it did work last time I saw this car. Now two and two and two make six in my book. But you can prove it with the volt-ammeter if you want."

Larry laid down the test leads. He looked approvingly at his favorite boss.

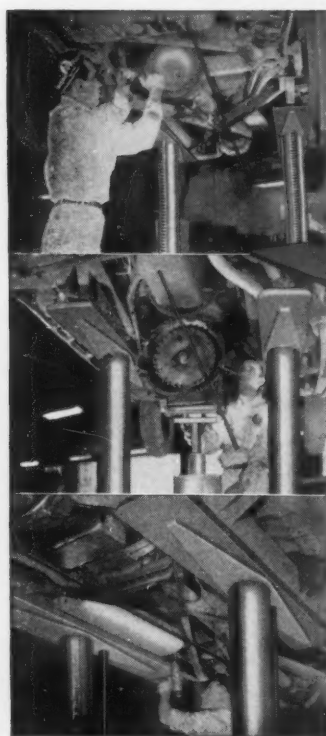
"You know, Pop, we don't need instruments when you're around. Might just as well give them to some underprivileged brick mason. Put a pigtail on you and charge up your old battery and you'd make the best damned tune up box this country has ever seen."

Old MacDonald took out a plug of tobacco and bit off a chunk. "And think of all the electricity you'd save," he grunted.

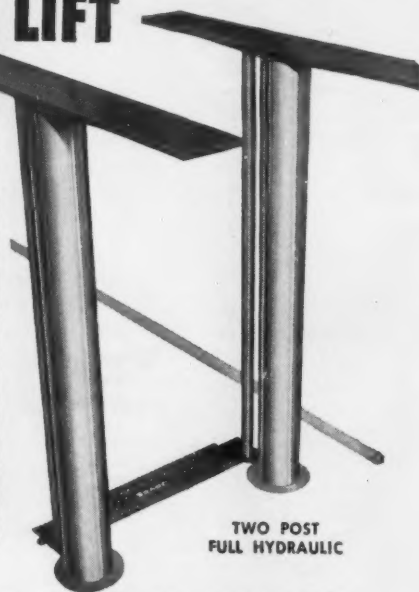
MEMA Credit Dept. Committee Members

According to an announcement from the Motor and Equipment Manufacturers Association the following men will guide MEMA Credit Department Policy this year:

C. H. Seibert (Behr-Manning Div. of Norton Co.), chairman; R. D. Williams (E. Edelmann & Co.); H. B. Wheeler (Weatherhead Co.); C. F. Stuhlreyer (Grote Mg. Co.); F. C. Westphal (Ammco Tools); C. A. Long (Permacel Tape Corp.); J. W. Marsteller (DeVilbiss Co.); A. A. Biggs (Weaver Mfg. Co.); M. H. Campbell (Campbell Chain Co.); L. G. Ryan (Thompson Service Sales), and A. E. Hetzel (AP Parts Corp.).



NEW JOYCE TWIN-MASTER LIFT



TWO POST
FULL HYDRAULIC

COMPLETE, "RIGHT-DOWN-THE-MIDDLE," ACCESSIBILITY BUILDS YOUR SERVICE PROFITS!

The "right-down-the-middle," wide open space, provides greatest under-car accessibility to *all* parts requiring service. Faster service, less job time . . . greater profit.

Check these features . . . fast car spotting with virtually no adjustments . . . car frame contacted directly by lift rails . . . smooth working area . . . **built-in automatic safety latch** functions at every point throughout the complete rise of lift . . . simple, accurate lift control . . . movement of pistons synchronized by fool-proof rack and pinion equalizer.

And here's a plus feature . . . the Twin-Master handles all unconventional frame cars and $\frac{3}{4}$ ton trucks.

WRITE TODAY FOR COMPLETE INFORMATION!

IN CANADA: Midland Foundry & Machine Co., Ltd., Midland, Ontario.



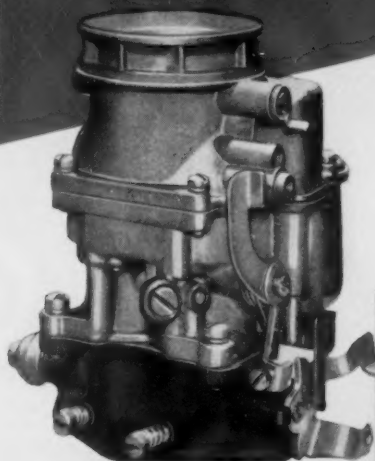
THE JOYCE-CRIDLAND COMPANY

Designers and Builders of Lifting Equipment Since 1873
DAYTON 3, OHIO, U.S.A.

How to turn minutes into

Top Dollar Profits

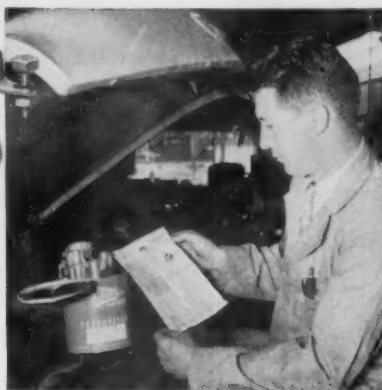
This Holley Carburetor can earn you \$8⁸⁵ in just 12 minutes



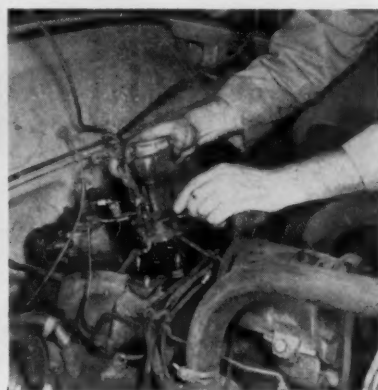
That's right. Seventy cents a minute, every time you install a new, improved-design Holley R-713-AAS carburetor. In less time than it takes to pack front wheel bearings or gap a set of spark plugs or grease and lubricate an automobile you make \$8.85, far and away one of your most profitable service jobs.

What's more the new Holley R-713 with high-lift nozzle bars gives improved engine performance unequaled by any older model carburetor. You increase your turnover ratio while actually reducing your parts inventory by five numbers. It's designed to fit all 1934-53 Ford Eights as well as 1939-48 Mercurys—there are nearly *seven million* on the road today.

See your Holley distributor today. Let him show you how to get more and higher profits per minute by installing the new, improved Holley R-713-AAS carburetor now.



1 Simple instruction sheet is included in every can. This Holley sealed carton assures you of a new carburetor.



2 Mechanic has taken off the fuel line, choke and throttle arms. Old gasket is worn and should be replaced.



3 Carburetor is installed and fuel line vacuum tube, choke, throttle arms are in place. Only tools required were open end wrenches and a screw driver.



4 In just 12 minutes final adjustment is completed. Total gross profit over that period is \$6.40 on carburetor sale plus \$2.45 installation charge.

FOR MORE THAN HALF-A-CENTURY
ORIGINAL EQUIPMENT MANUFACTURERS
FOR THE AUTOMOTIVE INDUSTRY

HOLLEY
Carburetor Co.

11955 East Nine Mile Road
Van Dyke, Michigan

RT-22



See this illustration in full color in the Delco Super 11 advertisement, appearing in the March 24th issue of The Saturday Evening Post.

Delco Super 11 Brake Fluid improved with HTD for new braking safety anywhere

For greater braking safety, sell Delco Super 11 improved with HTD! This new heavy-duty hydraulic brake fluid is *original equipment* in General Motors cars and trucks. And your customers are being pre-sold on it right now with a strong national advertising campaign. It again and again tells your customers that—

Delco Super 11 improved with HTD is 4 ways better

- More effective operation at 50° higher temperature.
- Minimizes chance of vapor lock.
- Reduces loss of fluid by evaporation.
- Has better lubricating qualities.

Under all driving conditions new Delco Super 11 brake fluid improved with HTD provides an extra margin of driving safety.

You can get Delco Super 11 improved with HTD quickly from your United Motors distributor or General Motors car and truck dealers. Packaged in all convenient sizes, from pint cans to 54-gallon drums.



A GENERAL MOTORS PRODUCT — A UNITED MOTORS LINE
DISTRIBUTED BY WHOLESALERS EVERYWHERE



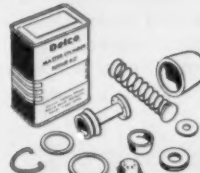
Another General Motors Value



DELCO LINED BRAKE SHOES are built to original equipment specifications. They're best for replacement.



WHEEL CYLINDER REPAIR KIT



MASTER CYLINDER REPAIR KIT

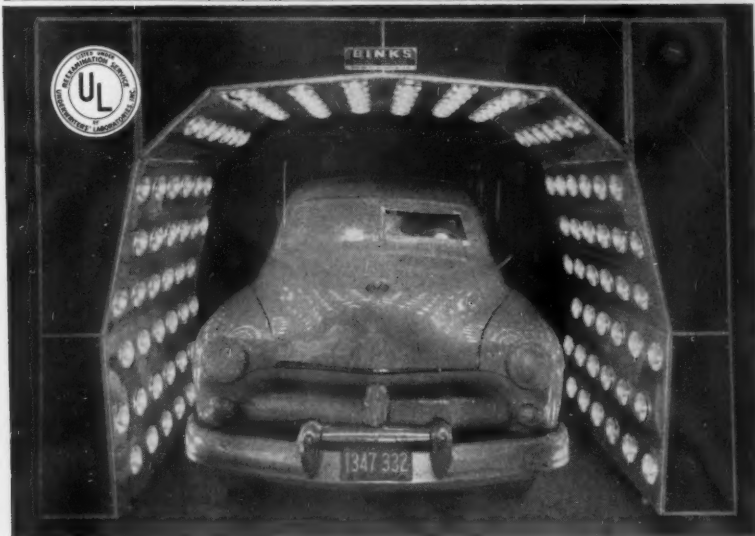
All the parts needed to put a wheel cylinder or master cylinder back in normal operating condition.



Moraine Products

Division of General Motors, Dayton, Ohio

WHAT'S NEW in infra-red drying ovens

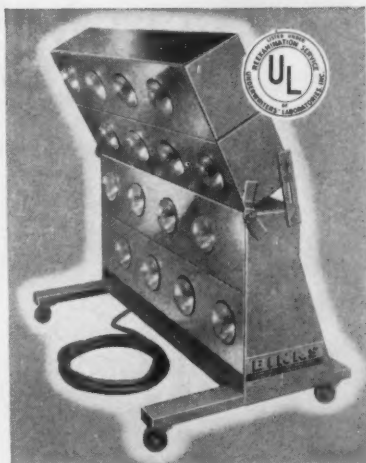


Binks' new ovens dry car finishes in 30 minutes...and less

Binks' new complete line of Underwriter-approved mobile and portable infra-red drying ovens give you factory-quality, dust-free finishes...in less than 30 minutes.

The semi-automatic tunnel, shown above, is designed to follow the contour of a car, insuring that all surfaces are dry. Heat exposure time is controlled by variable speed drive (12 to 33 ft. per min.)...heat application area is regulated by selective switches controlling individual banks of lamps...particularly important when refinishing today's two- and three-tone cars.

Binks' semi-automatic mobile ovens...for shops refinishing up to 8 complete cars a day...are available with 72, 108, 132 or 180 infra-red lamps. Recessed controls for lights and motor-drive take up less room...prevent accidental operation. Standard ovens are wired for 220-60-3 current.



Portable Drying Units

For the refinishing shop which specializes in spot touch-ups or individual panel repair, Binks has a full line of portable infra-red units...from the Model 16 LP above to the 48-lamp multi-use unit.

Binks
EVERYTHING FOR
SPRAY PAINTING

Get complete drying oven information in Binks' new Bulletin O.B. Contains all oven specifications...and information about Binks' new Job-Rated outfits for refinishing and drying either 8, 4 or 2 complete cars a day. Get a free copy by writing to address below:



Binks Manufacturing Company

3124-34 West Carroll Avenue, Chicago 12, Ill.

REPRESENTATIVES IN PRINCIPAL U. S. AND CANADIAN CITIES • SEE YOUR CLASSIFIED DIRECTORY

Management Clinic . .

Continued from Page 58

cost is depreciated during the early years of the life of the asset.

Another new method, known as "sum of the years' digits," has a similar effect. You should figure depreciation on a new asset in all possible ways so that you can decide which is best for you and make the proper choice.

These methods of rapid depreciation may be particularly helpful to a company which is currently making large outlays for new equipment, but the depreciation left for the later years of the asset's life will be less than under the straight-line method. The best method depends upon the circumstances of the individual company, and is also affected by such imponderables as estimates of future earnings and tax rates during the life of the asset.

Research and Development

Another choice confronting the taxpayer is whether to treat research and development costs as immediately deductible expenses or to amortize them over a period of years. The immediate deduction is certainly a "bird in the hand" and may be very attractive to a company which needs this tax benefit to help finance the undertaking.

The company which can afford to spread the cost over the estimated useful life (or at least sixty month if the useful life cannot be determined) may find it best to do so. This is especially likely to be advantageous for companies whose income is expected to increase.

There is a provision in the 1954 Internal Revenue Code which allows some proprietorships and partnerships to be taxed as if they were

(Continued on page 128)

MEETS EVERY SEALING NEED!

TiteSeal®
GASKET & JOINT
SEALING COMPOUND
7 BASIC BLENDS
Makes all assemblies
leakproof and
pressure tight
at Automotive Jobbers

RADIATOR SPECIALTY CO.
Charlotte, North Carolina

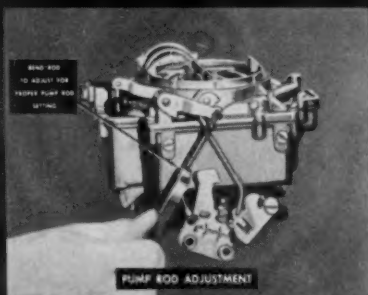
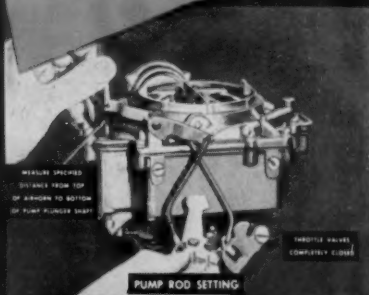
Carburetor Service is a Science...

ROCHESTER PRODUCTS

College of Carburetor Knowledge... Ready to Serve You!

Higher learning means higher earnings!
You can't stump the experts on carburetion service. But *you* are the expert when you finish the complete course now being offered at GM Training Centers throughout the country. Factory-trained technicians, using up-to-date methods and materials, teach you the fundamentals of today's highly specialized carburetor design... the fine points of service that make you master of Rochester Carburetor jobs. Take advantage of this opportunity to *learn more... and earn more!* Write the United Motors Service distributor in your area for further information, *today!*

ROCHESTER PRODUCTS DIVISION, GENERAL MOTORS CORP., ROCHESTER, N. Y.



CARBURETORS BY ROCHESTER PRODUCTS

Management Clinic • • Continued from Page 126

corporations. This choice should not be made lightly, as there is considerable uncertainty about the provision and the proprietorship or partnership desiring corporate tax treatment might find it better actually to incorporate.

Choice of Fiscal Year

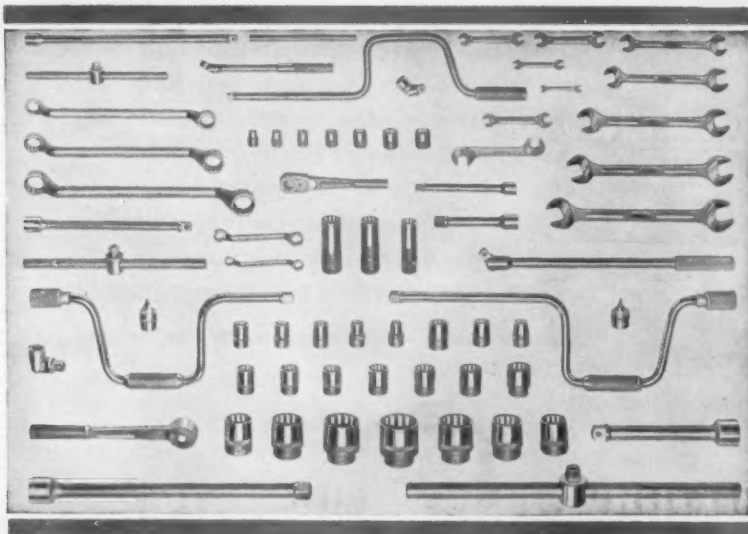
Regulations now permit changes

of fiscal year in some cases without permission of the Treasury Department. Generally it is wise to use the fiscal year which corresponds most nearly with the annual cycle of business operations, ending at the low point of receivables, inventories and loans, instead of a calendar year. This reduces the area of possible dispute over such mat-

One tool
or a chest—
if it's
BONNEY,
it's best!

WHETHER it's an open-end wrench . . . or a complete set of tools, look to BONNEY for the right tool for every job. BONNEY Tools are the first choice of automotive men, because their lightness, strength, balance, and precision always give them just the right "feel."

Good tools—and the right tools—are half the job. So make your job easier. Insist on BONNEY Tools.



Illustrated: Bonney AM 44 Socket and Tool Set—70 pieces.
3/8", 1/2", 3/4" Square Drive Sockets and Attachments.

BONNEY FORCE & TOOL WORKS
ALLENTOWN • PENNSYLVANIA



ters as value of inventories, and has many advantages apart from tax considerations. The change should be carefully timed, though, to avoid possible adverse tax effects during the changeover period.

Under the present tax law, payments from your company to employees for treatment of sickness or injury are not taxed as income of the employees. If the company has a plan for continuing all or part of an employee's pay while he is absent for sickness or injury, limited amounts of this "sick pay" are also tax exempt.

This applies whether the payments are made by the company or by an insurance company. In the case of a sickness requiring hospitalization even for one day during the course of the illness, or in the case of any injury, the first \$100 per week of payments are tax free. In the case of sickness which does not require as much as a day's hospitalization, the exemption begins after the first week of absence.

No great formality is required concerning the "plan" but it should be explained to employees, and appropriate records kept of the amounts paid. Proposed regulations governing tax withholding in 1956 from payments to ill employees were still under discussion when this article was prepared.

If you contract for repairs and improvements to your business property, be sure that these two types of work are billed separately. Should you lump them together, you may find that the entire cost has to be capitalized for future depreciation. By listing the cost of repairs as a separate item you are allowed to deduct it as an expense of the current year.

For example, you might have a furnace repaired and new radiators added. By separating the charges you can deduct the cost of the repairs in the current year, although the new radiators would be improvements subject to depreciation during their useful life.

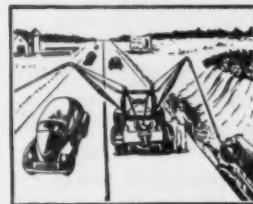
Many deductions are lost through failure to keep adequate business records. Be sure that you have good records to show you what deductible expenses you have had, and to back up your deductions in case they are questioned by the Govt.



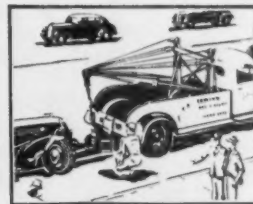
Holmes Wreckers are designed to handle safely all types of recovery jobs. The larger units are built of heavy, reinforced construction with power and capacity to make direct lifts from deep ditches, embankments, etc.



Wrecker lifts or pulls from either side through power-operated double swinging booms. Out-rigger legs transfer all strain from the truck frame to the ground, assuring safe and efficient work over a wide area.



Holmes Double Boom type of construction permits the wrecker to be set up on the open road with minimum interference to or from passing traffic, without obstructing the flow of traffic, or endangering life or property.



Holmes equipment for towing can be quickly attached to either front or rear end of any model car or truck. It is easy to hook-up and when secured permits any disabled vehicle to be towed at high speed with safety.

Broaden Your Services with a HOLMES 525 WRECKER

It's costly for any shop to limit its service operations to only those customers who drive-in when something is needed. Today, it's no longer necessary for a shop to wait-on these occasional customers. Through modern road service any shop can easily broaden its operations by simply reaching out on the highway for cars and trucks that are waiting there to be towed-in for service. FAST, Efficient handling of these jobs with a Holmes wrecker means extra profits for the shop— Handsome towing fees, worthwhile service charges and best of all . . . Big Profit repair and wreck reconditioning jobs . . . that keeps the entire shop busy.

The servicing of "Road Calls" is a highly specialized operation that calls for a unit which can handle a wide variety of work. The Holmes 525 Model shown above, meets these requirements. It has speed and flexibility for light work with power and capacity for the average truck and is a most desirable unit for all round road service. See your jobber or write factory today for details on this popular Holmes model.

ERNEST HOLMES COMPANY

Chattanooga 7, Tennessee

Dual Exhausts Continued from Page 62

First of all, in a conventional V-8 engine, with a single exhaust, a cross over pipe is necessary to carry exhaust gases from the left bank to the existing exhaust system on the right. It should be explained to the customer how this results in considerable back pressure . . . interfering with the continuous free flow of exhaust gases. Excessive

back pressure, in turn, wastes gasoline, burns out valves, and carbonizes cylinder heads.

When duals are used, the exhaust capacity of the V-8 is doubled since each bank, in effect, has its own exhaust system. Consequently, gases get out faster and back pressure is reduced considerably.

The result is greater horsepower,

cooler running motor, immediate gas savings and all around improved engine performance.

Recent tests show that duals have reduced back pressure from a high of 6.5 pounds to 3.25 pounds and increased engine output by as much as 8-10 h.p. The reduced back pressure and increased horsepower were registered at wheel speeds of 27 m.p.h. to 94 m.p.h. and engine speeds ranging from 2000 r.p.m. to 4000 r.p.m.

Installation of duals is a not-too-complicated process except for certain models of cars whose "step-down" design and single unit body frame construction leaves little space for routing exhaust pipes and installing mufflers. Some difficulty may be encountered with certain other car models whose engine compartments are made so compact as to leave little room for installing extra headers.

Here's the NEW IGNITION ASSORTMENT CATALOG



Illustrates and describes
22 "TAILOR-MADE"
IGNITION ASSORTMENTS
WITH SIZES TO FIT
EVERY TYPE OF OPERATION

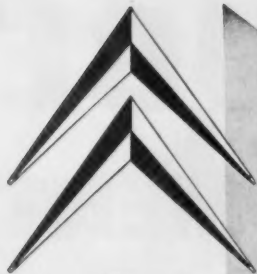
Write for your FREE copy!

TUNGSTEN CONTACT MFG. CO. • North Bergen, N. J.



The only word of caution is that the motor will probably have to be re-tuned after dual installation. A decidedly lean fuel mixture often results when duals are installed. This can often bring about pre-ignition if the motor is not re-tuned. The lean mixture results from the more complete exhaust scavenging which reduces residual gases in the cylinders after completion of the exhaust strokes.

The normal method of installing duals on V-8's is to eliminate the cross over pipe and connect a left exhaust pipe directly to the left exhaust manifold. This does not always eliminate the 180 degree turn
(Continued on page 134)



The world's largest manufacturer of front wheel drive cars and trucks. The smash hit of the Paris, London, and Chicago auto shows.

DS19

Sensational Four-Door Sports-Car Sedan is spacious, comfortable with unusually easy driving and handling.

Never, until the DS 19 has there been a car having all these features as Standard Equipment: unique Hydropneumatic Suspension with Self-Level Ride—Independent Front and Rear Brakes, Power Disc Brakes—Power Steering—Automatic Clutch—hydraulically operated Gear-Box.

The DS 19 is the safest car in the world—Front-Wheel Drive grips the road!

Here is true French beauty... with fashion-right color combinations, striking new nylon upholstery, an extra-large luggage compartment, safety-type Michelin tires, and many other de-luxe features as STANDARD EQUIPMENT.

2CV

Full Four-Seater is an easily accessible 4-door convertible... the most comfortable multi-purpose car. The Front-Wheel Drive, the unique Interconnected Suspension and hydraulic brakes gives extra-safeness of handling.

The economical air-cooled engine and semi-automatic Centrifugal Clutch make it a pleasure to drive!



DS 19
"The Car of Tomorrow"

A Citroën Franchise Can Be Yours Now!

Now for the first time, **CITROËN** is appointing Dealers in the United States. Here is your opportunity to be a selected **CITROËN** Dealer in a fully protected territory!

The same **CITROËN** franchise that has already brought profit and prosperity for more than 30 years to thousands of Dealers the world over can be yours now!



Every franchised Dealer will be backed by the vast resources, facilities, and experience of a leading manufacturer, and receive the full support of: national advertising with merchandising, sales promotion, and publicity, technical assistance from factory-trained engineers to help you set up your parts and service department. Service is a **CITROËN** tradition everywhere!

Remember . . . CITROËN is the imported car designed with Dealer-profit in mind!

For your application and additional information, call or write today!

CITROËN CARS CORPORATION

Sole importer and distributor of S. A. ANDRE CITROËN, Paris, France

EAST OF THE ROCKIES
300 PARK AVENUE, NEW YORK, N. Y.



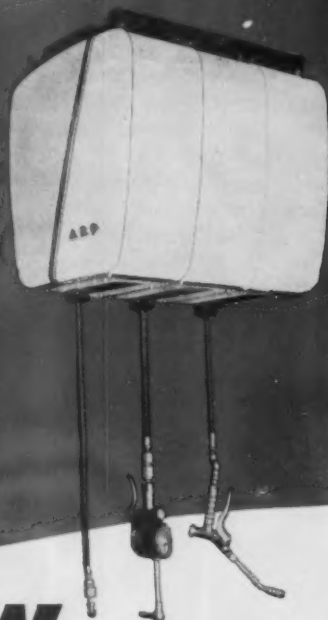
WEST OF THE ROCKIES
8423 WILSHIRE BLVD., BEVERLY HILLS, CALIFORNIA

New AROLUBE

LUBRICATING EQUIPMENT



This great new AROLUBE line is a born money-maker—the key to better profits for dealer, garage, or service station. Here's brilliant styling that attracts new customers, keeps old ones coming back—whether units are grouped for all essential services or used individually! As for performance, this line is a world-beater! It's ARO-engineered and built for extra years of usage, big savings in time and operating costs. See your Automotive Wholesaler now for all the facts!



With **NEW** **AL-207 PUMP**



• PROVED IN THE COLD OF CANADA



• PROVED IN THE SALT AIR OF FLORIDA



• PROVED IN THE HEAT OF ARIZONA



• PROVED IN THE SANDS OF NEW MEXICO

Perfected after three years of research and development! Not a single failure in 12,260 grease jobs during tests ranging from the torrid heat of Arizona to the frigid cold of northern Canada. Uses *less* air and *fewer* strokes to pump *more* lubricant! Instant pressure recovery on both up and down strokes—no time loss between piston cycles, no wait for pressure build-up! Completely sealed, no lubrication needed!

THE ARO EQUIPMENT CORPORATION
Bryan and Cleveland, Ohio

Aro of California, Los Angeles 7, California
Aro Equipment of Canada, Ltd., Toronto 15, Ontario
Offices in All Principal Cities



ARO
LUBE EQUIPMENT
Also . . . Air Tools . . .
Aircraft Products . . .
Grease Fittings

**WARRANTED FOR 3 YEARS
OR 10,000 LUBE JOBS!**

The Aro Equipment Corporation warrants the *AL-207 Air Motor* to be free from defects in workmanship and materials for 10,000 lube jobs or 3 years, whichever occurs first, from date of purchase!



Dual Exhausts Continued from Page 130

in the left pipe, however. Consequently, a special cast manifold for the left exhaust bank is recommended or else headers which serve the same purpose as the manifold.

Replacement parts companies are now going in for dual exhaust installations in a big way. For installations in front of the muffler, the following combinations are now

considered standard:

1. *Dual exhaust pipes* (left or both as required):

On many of the new V-8's only the left pipe is required since the left manifold is already designed for dual installation.

2. *Dual exhaust headers, with extensions:*

This unit replaces the original

manifolds, the cross over pipe, and the exhaust pipe between each bank of cylinders and the muffler.

3. *Left bank cast manifold with left exhaust pipe:*

For some models of Ford and Mercury this rear-outlet manifold combined with a left exhaust pipe, offers the most efficient installation.

4. *Left bank exhaust pipe and parts:*

This is used when the cross over pipe is eliminated. A special plug is included to close the opening left by the discarded cross over pipe.

For installation in back of the muffler, left or right tail pipes are generally available to match with existing tail pipes. In addition, complete parts kits including clamps, hangers, gaskets, etc., are available for the exhaust system installations.

Program Announced For IGO Convention

E. R. "Ernie" Welborn, vice president of the Independent Garage Owners of America, has reported that activities for the annual meeting of IGO of America in Wichita, Kansas, April 6 to 8 will include:

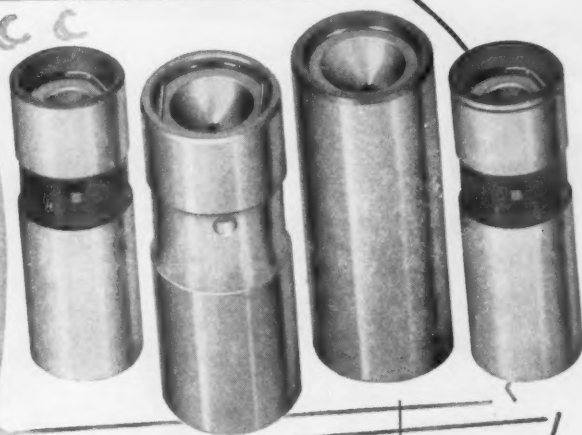
Registration on Friday afternoon, April 6, to be followed by conference room discussions; Convention sessions and banquet on Saturday, April 7; Board meeting for members only on Sunday, April 8.

During the Saturday sessions, anyone interested in the IGO of America is most cordially invited to attend. Speakers at the Saturday sessions include IGO of America executive director Ralph James and editor of MOTOR AGE Frank P. Tighe.

Robert J. Raht

The many friends of Robert J. Raht will be saddened to learn of his sudden death on Friday, January 20, 1956. Bob Raht had been with the Hein-Werner Corporation, Waukesha, Wisconsin, for twenty-four years and had been the sales manager of Hein-Werner Hydraulic Jacks since 1948.

Good news for your cash register



JOHNSON HYDRAULIC TAPPETS for REPLACEMENT

Made to meet the demands for a tremendous tappet replacement market by a pioneer manufacturer of hydraulic tappets; backed by the fine performance reputation of long established Johnson Adjustable Replacement Tappets.

Easy to install during valve jobs or any other time.

"Equal to or better than original equipment."

See your jobber and order today!



For many years, Johnson has also been serving the replacement tappet field with the original Johnson Adjustable Tappet for Ford and Mercury V-8's. Millions of these tappets are in use today.

now available for
BUICK
Straight 8 1949-53

CADILLAC
1949-54

OLDSMOBILE
1949-54

CHEVROLET
With P/G 1950-53

"Tappets are our business"

JOHNSON JP PRODUCTS

INC.

MUSKEGON, MICHIGAN

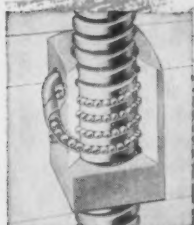
THE FIRST--FIRST FOR '56.....

It's a **WHIZ**

**---A HEIN-WERNER
TWIN SADDLE SERVICE JACK---**

**\$ 39⁷⁵
at**

■ SUGGESTED DEALER NET PRICE



The heart and power of the WHIZ—a free moving stream of steel balls.



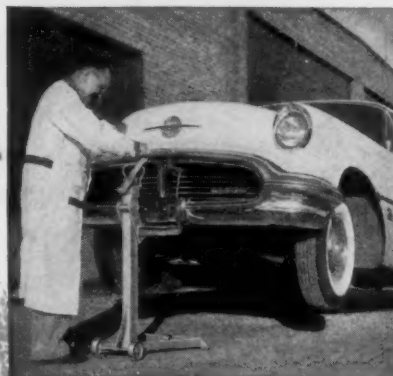
Hein-Werner manufactures and sells more hydraulic jacks than any other company in the world today!

Only the genius of Hein-Werner's design and engineering skill could make the WHIZ possible. It is the *first* Twin Saddle Service Jack that is easily transportable for out-of-shop service calls... And, — look at the terrific *low price*!

In addition to portability*—and low price—the new WHIZ includes these features: **LIGHT** and sturdy... Weighs only 77 pounds...

FIXED TWIN SADDLES assure center loading and maximum safety... designed for **EASY POSITIONING** in close quarters... **STURDY POST** of structural steel channel... new "**SPRING TORSION**" positioning roller... new handle **REDUCES EFFORT 20%**... **POSITIVE SAFETY LOCK** to hold load... plated **SCREW** and **BALL UNIT** is rustproof... where situation requires, jack **can lift one wheel only**... **RATED CAPACITY — 1½ TONS.**

The WHIZ is ideal for fast access for tire, brake, front-end, and car washing service... To assure early delivery — order from your Hein-Werner Jobber **NOW.**



HEIN-WERNER CORPORATION • WAUKESHA, WISCONSIN

Hein-Werner stock listed on the Midwest Stock Exchange since 1936

The complete Hein-Werner line includes: Under-Axle Jacks of 1½ to 100 ton capacity... "Bumper-Lift" Jacks for passenger cars... Service Jacks for shop use... Adjustable Car Stands... Twin Saddle Service Jacks... "Push and Pull" and "Pushmaster" Jacks for body, fender, and frame repair work.

(Tandems have two independently operating 15,000-pound capacity axles.) Also offered is a six-speed fully automatic transmission, the Powermatic, developed for Chevrolet heavy-duty models and some medium-duty models.

Representing four additional series or groups of trucks in the line, the 40 new heavy-duty models

have a maximum GVW rating of from 17,000 to 32,000 pounds, while the GCW rating ranges from 34,000 to 50,000 pounds.

Nominally rated at 60-pupil capacity, the two new heavy-duty school bus chassis are designated at 19,000 and 22,000 maximum GVW, respectively. Previous high school bus capacity for Chevrolet

vehicles was a total of 45 pupils.

Powermatic transmission, tested over rugged mountain ranges of the United States, promises safety advantages for heavily loaded vehicles, especially on steep downgrades, because of its in-built hydraulic retarding device. In addition, the transmission offers more responsive control, greater operating economy and less driver fatigue than manual shift transmission.

The retarder, operating from a pedal in the conventional clutch position, sets up reverse hydraulic action in the transmission with effect up to six times engine drag, with little or no service braking needed on most downgrades.

The transmission automatically determines a shift schedule according to load, grade, speed and other factors. The driver may operate the selector to three speed ranges—drive for normal operation; intermediate for heavy traffic or hilly country; or low for traction or controlled power. Power take-off openings for installation of special equipment are

Most folks know how to say nothing; few know when.

provided on both sides of the unit for the first time in any automatic transmission.

With the new 322-cubic inch V8—the Loadmaster—Chevrolet's truck power plants this year total 10—five V8s and five "6's." A short stroke-to-bore ratio of .8-to-1 fits the Loadmaster for those heavy-duty trucks on which it is standard equipment. Piston travel per vehicle mile is relatively low with low friction resulting. Stroke is listed at 3.2 inches and bore at 4 inches with a 7.7-to-1 compression ratio. Individual parts and the engine as a whole are precision balanced. Other Loadmaster features are full pressure engine oil system and positive crankcase ventilation.

Trucks equipped with optional Chevrolet tandem equipment have the Loadmaster V8 engine with 13-inch coil spring clutch, heavy-duty five-speed transmission, combination three-speed auxiliary and

(Continued on page 138)



THIS you never do when you work with















**EIS MAKES
BETTER PARTS
TO MAKE
BRAKES BETTER!**

**BETTER SERVICE!
BETTER PACKAGED!
BETTER CATALOGUED!
BETTER PRICED FOR A
BETTER PROFIT!**

Write for NEW Catalogue!
EIS AUTOMOTIVE CORP., Middletown, Conn.

**NEW
1956
CATALOG**



Racking Up Profits

WITH NEW ACME ENAMEL SYSTEM

New 135 Kwik-Slik Non-Sanding Primer-Sealer gives slick enamel jobs quicker and with lower cost

Your priming, sealing and ground coat requirements are all rolled into one fast-working product . . . Acme's new 135 Kwik-Slik.

It's a synthetic product—so it works wonderfully with Fleet-X Enamel. Our chemists say that because it's a synthetic undercoat, it has a real "affinity" for synthetic enamel. Let's just say they're made for each other and work well together to give the proper bond.

Like its name says, it requires no sanding. That's one reason it's quick. Another: it dries in 30 minutes for recoating with Fleet-X Enamel.

So, the next time you want to turn out a really good, low-cost enamel job quickly, try Acme's new all-synthetic system with 135 Kwik-Slik. And to thin it just right, add DV-61 to your team—for even more profits . . . since it can be thinned 100%.

Call your
**ACME
JOBBER**



ACME

AUTOMOTIVE FINISHES

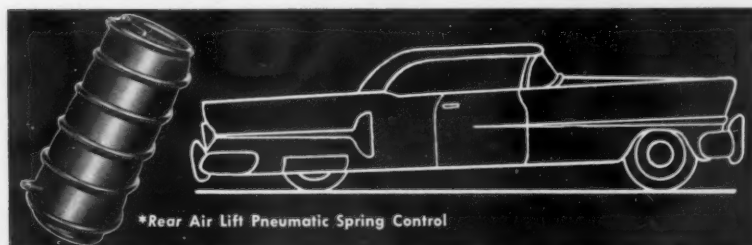
ACME QUALITY PAINTS, INC.
8250 St. Aubin • Detroit 11, Michigan



MECHANICAL ADVANCEMENTS are introduced in Chevrolet's fleet of "Task Force Trucks" for 1956. Developments being introduced include automatic transmissions available for all 75 models on 15 wheelbases, tubeless tires as standard equipment, more powerful V8 and six engines, improved headlights, more luxurious interiors and restyled series identifications and emblems. Here illustrated is Chevrolet's light-duty half-ton pickup. It is distinguished by the 3100 marking on the side panel.

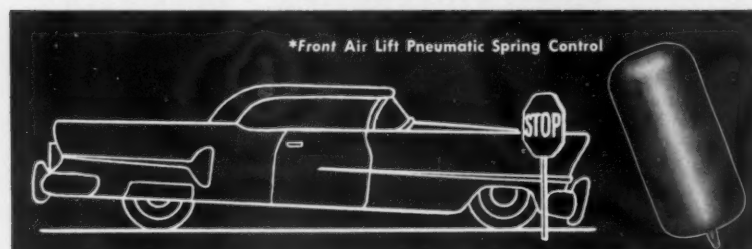
Truck Fleet . . .

Continued from Page 136



*Rear Air Lift Pneumatic Spring Control

TWO PRIME PROSPECTS FOR AIR LIFTS*



*Front Air Lift Pneumatic Spring Control

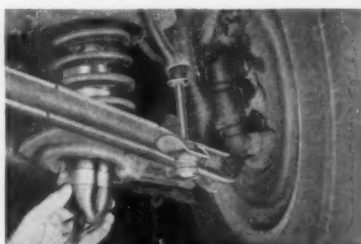
. . . fast, clean sellers with a BIG market!

Just count the cars with "sagging rears" from towing trailers or overloading! Every one is a natural for rear Air Lift Pneumatic Spring Controls . . . the *only* booster that adjusts instantly with air to compensate for the exact amount of overload up to 1000 lbs. For cars that dip on stops or sway on turns, *front* Air Lift units provide wonderful stabilizing action — also eliminate bottoming on bumps and correct front end sag.

Air Lift units are fast, clean sellers — one trained man can install a set in fifteen minutes — and the handsome profits can grow to pay your rent. Dealerships still open . . . just see your jobber or write Department 103.



Rear AIR LIFT Pneumatic Spring Controls fit in coil springs or come equipped with own coil and fit between leaf spring and frames.



Front AIR LIFT Pneumatic Spring Controls slip inside any coil springs not loaded with shock absorbers to support spring action.

AIR LIFT COMPANY, Lansing, Mich.



power dividere, two 15,000-pound axles, and walking beam suspension with enclosed two-stage "pile" springs.

The new 2½-ton trucks carry distinctive fender and grille treatment. Heavy-duty models have new more rugged parallel-type frames while those on optional tendems are even sturdier. Standard front axle I-beam is rated at 7,000 pounds, over 50% stronger than in the medium-duty group. Heavier alloy steel steering knuckles, wheel spindles and steering arms provide greater strength while anti-friction roller bearings are installed at each kingpin to receive the thrust and offer easier handling. A new power steering cylinder with longer stroke is optional for heavier-duty trucks.

In two groups of the 40 new models, front and rear brakes have been increased in size and effectiveness. A new Chevrolet option for 1956 is the air-over-hydraulic brake for the 2- and 2½-ton units. This assembly includes an engine-mounted compressor and reservoir tank with an air pressure gage and low pressure alarm buzzer in the cab. Vacuum-powered 9½-inch Hydrovac brakes are standard on all heavy-duty models.

Other features of the heavy-duty models, as well as the remainder of the 1956 truck line, are:

Tubeless tires, sealed beam headlamps with 80 feet more low beam visibility on the right hand side of the road, and an improved 12-volt electrical system standard on all models. Automatic transmission is optional for all models except school bus chassis.

GREATEST FRAM CLEAN OIL MONTH

BIG PAINTED BULLETINS
on major highways
across the nation!



Thousands of Clean Oil Month
BILLBOARDS Coast-to-Coast!

PLUS Millions of impressions in these great national magazines!

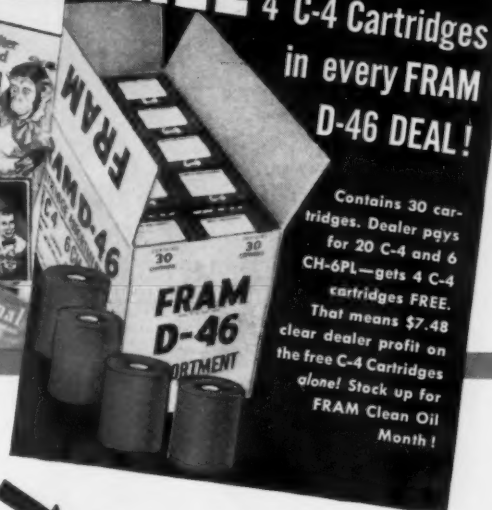


FRAM DEALER TIE-IN KIT!

- ANIMATED WINDOW DISPLAY
- EYE-CATCHING STREAMER
- ENTRY BLANK FOR FRAM GIANT \$110,000 SWEEPSTAKES



FREE 4 C-4 Cartridges
in every FRAM
D-46 DEAL!



Contains 30 cartridges. Dealer pays for 20 C-4 and 6 CH-6PL—gets 4 C-4 cartridges FREE. That means \$7.48 clear dealer profit on the free C-4 Cartridges alone! Stock up for FRAM Clean Oil Month!

Automatic FREE delivery to FRAM Franchise Dealers! Ties in with FRAM Clean Oil Month advertising everywhere. If you haven't signed up... see your FRAM wholesaler salesman NOW!

FRAM GIANT \$110,000.00 SWEEPSTAKES! Win one of 14 new cars... 1204 other prizes!

See your FRAM man for entry blanks.

FRAM CORPORATION, Providence 16, R.I., Fram Canada Ltd., Stratford Ont.



...Take Hold of a

plus THIS GREAT NEW BLACKHAWK FAMILY
OF AUTOMATIC TRANSMISSION TOOLS!

EXTERNAL ADJUSTMENT TOOLS



AH-10B
HYDRA-MATIC
BAND ADJUSTING
TOOL



AF-11B
FORDOMATIC-
MERCOMATIC
REAR BAND
ADJUSTING TOOL



ATL-2B
THROTTLE ARM GAUGE

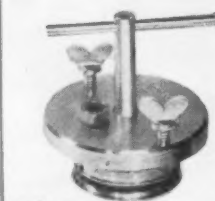


ATL-3B
THROTTLE ARM BENDER

INTERNAL SERVICE TOOLS



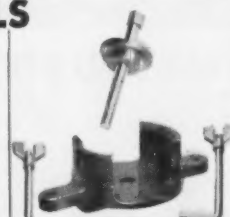
AF-10B
FORDOMATIC-
MERCOMATIC
FRONT BAND
ADJUSTING TOOL



ACT-1B
FRONT & REAR
CLUTCH TESTER



AH-11B
HYDRA-MATIC
FRONT BAND
ADJUSTING TOOL



ARC-2B
MULTI-PURPOSE CLUTCH
SPRING COMPRESSOR

BLACKHAWK®

Hand Tool



..... GET A FIRM GRIP ON FAST AND PROFITABLE AUTOMOTIVE SERVICE!

BLACKHAWK Hand Tools spell more money for you in automotive service! You can do more—do it quicker and better—with top-quality BLACKHAWK Tools that get you into and out of the tight spots on today's engines.

BLACKHAWK offers you a complete Line of money-making Tools for every phase of automotive repair. Every Tool

has the precise fit, perfect balance and great turning power demanded in today's service. BLACKHAWK Tools are designed for the job and fully covered by the BLACKHAWK Guarantee!

See these great mechanic's Tools today. They add up to quicker, easier automotive service for you! The New Britain Machine Co., New Britain, Conn.

NEED A BLACKHAWK HAND TOOL?



BLACKHAWK HAND TOOLS NEW BRITAIN, CONN.



PICTURED AT THE RECENT opening of General Motors Pittsburgh Training Center, the last of a nationwide network of 30 such centers, are, from left to right: James E. Goodman, vice president of GM and general manager of Fisher Body Division; John J. Cronin, GM vice president in charge of manufacturing; Harley J. Earl, GM vice president in charge of styling; James L. Conlon, general manager of GM's Buick-Oldsmobile-Pontiac Assembly Division, and Leonard Klaasen, manager of Fisher Body Division's plant at nearby McKeesport, Pa.

GM Opens 30th Training Center

General Motors has recently at Pittsburgh formally opened the last of 30 GM Training Centers throughout the country for continuous instruction of mechanics employed by GM car and truck dealerships.

The first GM Training Center was opened in Detroit, September 8, 1953. In the two-year span since that time some 100,000 mechanics employed in GM dealerships across the country have received detailed service training in the 29 centers already operating. It is estimated that the 30 centers will train or retrain 150,000 mechanics annually.

Eligible as enrollees at the centers are experienced mechanics from GM dealerships; mechanics from independent shops who may enroll through United Motors Service Division of GM for specialized training, and mechanics employed by owners of GM vehicle fleets.

The 29 other centers are in or near Detroit, Cleveland, Boston, Union, N. J., Chicago, Washington, Jacksonville, El Paso, Portland, Ore., Dallas, Memphis, Atlanta, Philadelphia, Charlotte, Denver, San Francisco, St. Louis, New Orleans, Houston, Buffalo, Minneapolis, Oklahoma City, Tarrytown, N. Y., Kansas City, Kans., Milwaukee, Salt Lake City, Cincinnati and Omaha.

THE FLEXON 6 FOR '56



WHY STOCK TWO when one will do? The new Flexon dual purpose design operates with equal efficiency in both pressure and non-pressure systems—eases your handling problems.

ASK ABOUT TUBING—Flexonics Corporation manufactures a complete line of flexible metal tubing for exhaust, venting, etc.—a profitable addition to your line.

**Sales-makers and Profit-makers—
Six Flexon Models
Serve over 91%
of all cars in service**

In '56 you can simplify thermostat stocking problems with "The Flexon 6"—the six Flexon models that meet the thermostat requirements of over 91% of all the cars now in service. Here's new efficiency and economy in stocking and handling that spells **BIGGER PROFITS** for you.

Ask your Flexonics Jobber for full details or write for descriptive literature. And be sure to ask about the new fast-turnover balanced assortment.



Flexonics Corporation
AUTOMOTIVE DIVISION

1398 S. THIRD AVENUE, MAYWOOD, ILLINOIS

FORMERLY CHICAGO METAL HOSE CORPORATION



Manufacturers of thermostats and flexible metal tubing.
Plants at Maywood, Elgin, Rock Falls and Savanna, Ill. and Memphis, Tenn.
In Canada: Flexonics Corporation of Canada, Ltd., Brampton, Ontario

T-33

Mrs. Rich: "Hello! I haven't seen you in a long time."

Mrs. Poor: "Yes, and so many things have happened at our house. I had my teeth out and an electric range and refrigerator put in."



*In normal car use

2-Million-Mile, 25-Month Road Test Proves

AUTO-LITE sta-ful

Finest Battery Money Can Buy!

Available wet or dry-charged



PROVED BEST FOR YOUR CUSTOMERS by the most dramatic test ever attempted!

OVER 80 TIMES AROUND THE WORLD AND NOT A SINGLE BATTERY FAILURE!



With this completely tamper-proof sealing, not a single battery used in this test could be watered or even inspected by anyone other than the authorized personnel chosen for this task.



More than two years of normal daily service, during which 100 test cars averaged 20,000 miles, proves convincingly that Auto-Lite "Sta-ful" batteries need water only three times a year.*

Here's Clinching Proof that

AUTO-LITE "sta-ful" BATTERIES

*Need Water Only 3 Times a Year!**

Two million miles of driving . . . equivalent to 80 times around the world . . . proves the ability of these batteries to really take punishment. More than 2 years ago 100 Auto-Lite "Sta-ful" Batteries were taken off the production line. Tamper-proof seals were installed on the caps, and the batteries were then installed in 17 different makes of cars in all parts of the United States and Canada.

Over a 25-month period, the cars were driven a total of more than 2 million miles over all types of terrain and under all climatic conditions. The batteries were inspected in that period only by authorized personnel.

At the end of this 25-month, 2-million mile test period, these scientific facts were established which account for Auto-Lite "Sta-ful" Batteries being the fastest selling premium batteries in America today:

1. 9 out of 10 batteries subjected to this test needed water only two times a year, and none needed water more than three times a year.
2. Of the 100 batteries tested, not one failed.
3. At the end of 25 months of service, over 95% of the batteries exceeded the initial cold discharge voltage requirement of a new battery.
4. Over 81% exceeded the initial cold capacity requirement of a new battery.
5. Over 66% exceeded the initial 20-hour discharge requirement of a new battery.

AUTO-LITE "sta-ful" IS AMERICA'S FASTEST SELLING PREMIUM BATTERY!

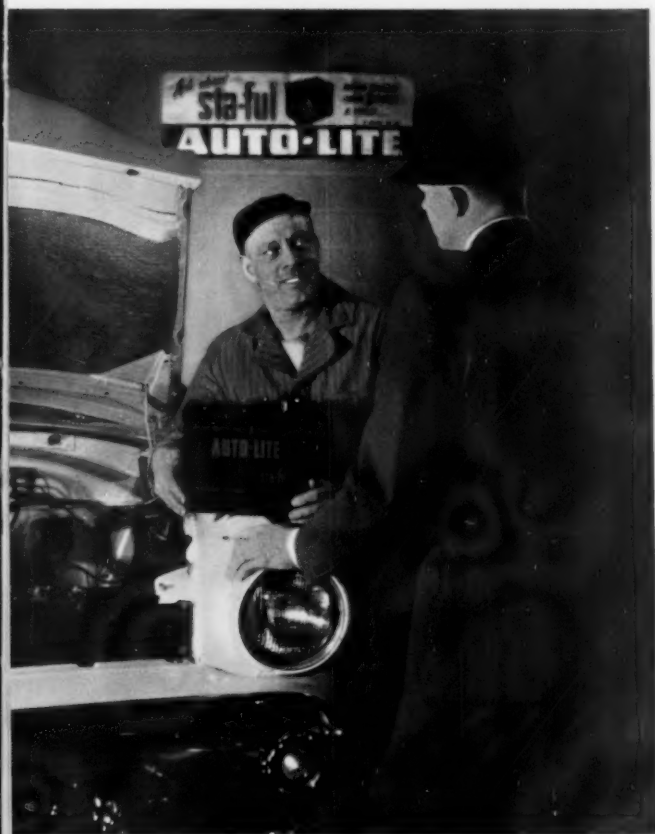
DRY-CHARGED... NO STORAGE HEADACHES!



Ordinary wet batteries represent a large investment in perishable merchandise for the dealer. If the wet-charged batteries remain in stock too long, they become over-aged. "Sta-ful" Dry-Charged Batteries can be stored indefinitely without danger of spoilage.



"Sta-ful" Dry-Charged Batteries do not deteriorate while in stock; nor do they require trickle-charging or recharging. They are activated only when readied for installation. Thus, the customer is assured of his battery's full strength at the time of purchase.



AUTO-LITE "sta-ful" Dry-Charged Batteries Begin Their Service Life Only When They're Activated and Installed!

It's easy to sell the average car owner on the merits of a premium article like the Auto-Lite "Sta-ful" Dry-Charged Battery. The dealer need merely explain to his prospect that there is no possible chance of his getting a battery that has deteriorated or been damaged in any way. The guarantee life of this premium battery begins when "Activite" is added at the time it is installed. And it is obviously factory-fresh, full of power, ready for long, dependable service under a fair guarantee policy the moment your customer drives away from the shop. With the added assurance that "Sta-ful" needs water at most only three times a year,* he leaves with a feeling of security that his car's electrical power system will function efficiently at all times.

*In normal car use

Simple Arithmetic Proves How Auto-Lite Dealers Get Bigger 2-Way Profits with a Fair Guarantee Policy

From the 2-million-mile tests given Auto-Lite "Sta-ful" batteries, it is easy to see that a guarantee of 48 months, 60 months or even longer could be given every purchaser. Instead, from actual experience, dealers surely realize that long guarantees mean less profit. Therefore, "Sta-ful" batteries carry a reasonable guarantee of 36 months. Below are clear-cut examples of how this policy protects dealer profit.



Compare These Typical Original Battery Sales

Every dealer knows that it takes just as long to install an ordinary battery as it does an Auto-Lite "Sta-ful." Therefore, his cost for this labor is the same. But see the difference in profit for him on two typical sales.

Sale of Ordinary Battery

Selling Price.....	\$19.95
Dealer Cost.....	13.15
Dealer Profit.....	\$ 6.80

Sale of "Sta-ful" Battery

Selling Price.....	\$27.95
Dealer Cost.....	18.00
Dealer Profit.....	\$ 9.95

46% MORE DOLLAR PROFIT ON "STA-FUL"

Fair Guarantee Policy Protects Dealer Profit

DEALER A

... has sold his customer a premium battery, guaranteed for 36 months. It failed at the end of 30 months, so he sold another new premium battery and here's the result:
User pays dealer \$.78 per month for 30 units or months of battery service.....

Dealer receives for old battery.....	\$23.40
Total received by dealer.....	1.75
Dealer net cost.....	\$25.15
Gross profit to dealer.....	17.64
	\$ 7.51

DEALER B

... has sold his customer a premium battery, guaranteed for 48 months. It failed at the end of 30 months, so he sold another new premium battery and here's the result:
User pays dealer \$.58 per month for 30 units or months of battery service.....

Dealer turns in old battery to jobber.....	\$17.40
Total received by dealer.....	.00
Dealer net cost.....	\$17.40
Gross profit to dealer.....	15.66
	\$ 1.74

\$5.77 MORE GROSS PROFIT ON "STA-FUL"

It will pay you to talk this over with your **AUTO-LITE BATTERY SALESMAN!**

Housewife Attended Auto-Lite's School

When Mrs. Louise Long, petite housewife and mother of two children, attended the Auto-Lite Central Service School in Toledo, Ohio, the latter part of last year it raised the question:

How does a frilly gal join the coverall brigade that services the nation's cars?

Two Car Garage

It all started nine years ago when Mr. Long, after working in a factory and grocery store, decided to make a vocation out of his life-long addiction to tinkering with cars. He began modestly in a two-

Garage man: What's the matter, lady?

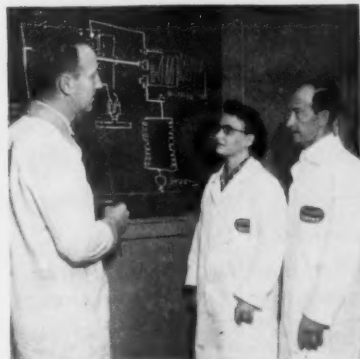
Woman traveler: They say I have a short circuit—could you lengthen it while I wait?

car garage behind their home. Two years ago he moved to their present location on busy Route 25, and that was when Mrs. Long entered the picture.

"I had helped Norman off and on before, but when he moved into the new shop, I jumped in with both feet," she explained. Although each puts in over 60 hours a week apiece, both of them would rather fiddle with a balky carburetor than practically anything else.

In the two years since they've been at their present location, their annual volume has tripled and they've had to build an addition.

Mrs. Long's mother helps care for the couple's two sons, aged



Instructor William Selb (left) makes point for Mr. & Mrs. Long.

eight and eleven, but they haven't neglected their parental duties. In fact, they still find time to serve as a Den Mother and Dad in a Cub Scout Troop.

Likes Baking

Surprisingly, they even have time for a common hobby—baking and decorating fancy cakes for weddings, birthdays and other significant occasions. Like tinkering with automobiles, however, it's rapidly becoming a thriving business. After

baking a particularly succulent and aesthetic cake for a Cub Scout affair, Mrs. Long found she had a couple of orders for similar fancy baked goods. It snowballed until the Long's have orders backlogged.

"I may have to go into the baking business permanently," said Mrs. Long. "If I do, though, I'll have a replacement. Young Norman—he's the eleven year old—has shown an interest in mechanics and has taken to hanging around the garage in his spare time."

When one welder handles both body and frame work...

Has arc booster for easy starting, non-sticking arc...

Yet costs less to buy and operate...

WHY
buy anything
but a
LINCWELDER
for your jobs



puts more profit
in service jobs

LINCWELDER

AC WELDER—180 AMP-250 AMP

gives you

- minimum distortion because instant fusion of arc welding puts less heat into metal
- instant-starting easy-to-hold arc with Arc-Booster to make quality welding easy
- wide continuous current range for bodies and frames
- rugged industrial construction with burn-out protection

Better look at Lincoln now. Send for specifications in Bulletins 1316 and 1331. Write

THE LINCOLN ELECTRIC COMPANY

Cleveland 17, Ohio

LINCOLN . . . one dependable source for all your arc welding needs . . . welders—electrodes—supplies.

The Lincoln Electric Company

Dept. 4009

Cleveland 17, Ohio

☐ Send me Bulletin 1316 and Bulletin 1331

☐ Have representative call

Company _____

Address _____

City _____ State _____

Name _____

Position _____

31% increase in retail sales...

Willys dealers enjoyed one of their best profit years...

Factory showed substantial profits...

712 new dealers added...

A PROGRESS AND PROFIT



By Hickman Price, Jr., Vice-president in charge of sales

In mid-1955, we told you of the encouraging results which Willys dealers and Willys Motors were achieving, under the new policy of concentrating on sales of the spe-

cialized and exclusive 'Jeep' family of 4-wheel drive vehicles. Since that date, results have been even more satisfactory both to Willys dealers and to the Factory.

This report will bring those results up to date.

An Increase of 31% in Retail Sales

U. S. retail deliveries of Willys utility vehicles during calendar year 1955 were 31% greater than in 1954. Because this gain was the result of sound selling to meet actual consumer needs, not frenzied wheeling and dealing price merchandising, it resulted in a marked increase in the profits of Willys dealers. In fact, in the case of some "dual" dealers, profits from 'Jeep' vehicle sales supported losses on passenger car operations of other makes.

Export business continued at a high level. Throughout the world, 4-Wheel-Drive 'Jeep' vehicles are making important contributions to industry, agriculture, commerce, and public service. Willys continues as the third largest exporter of commercial vehicles.

New Vehicles have Expanded the Market Potential

Two new vehicles, recently introduced, have expanded the market potential for Willys dealers:

1. The new model CJ-6 Universal 'Jeep' gives prospects on the farm, in industry and in public service a choice of three Universal 'Jeep' models:

a. The standard Universal 'Jeep' (Model CJ-3B) ... time-tested and performance-proved, and identifiable on sight the world over.

b. Model CJ-5 Universal 'Jeep', newer and more rugged than its predecessor.

c. The newest model CJ-6, a larger Universal 'Jeep', with a longer wheel base, 50% more cargo area and a payload capacity of up to 1,500 pounds. This new model has all the famous features of the standard Universal 'Jeep'. Willys dealers have found it another new selling tool to offer 'Jeep' prospects who need a cargo area larger than that of the standard 'Jeep' but not as big as that of the 'Jeep' Truck.

2. The 2-Wheel-Drive 'Jeep' Dispatcher, which was born to cut today's high delivery costs, and does just that. It was designed for sale to business-men whose profits depend on low-cost efficient delivery service, especially in metropolitan markets. The 2-Wheel-Drive 'Jeep' Dispatcher sets a new standard of performance for get-up-and-go, fuel economy, low-cost maintenance, maneuverability in traffic, and ease of parking on crowded city streets. It opens up a whole new market to franchised 'Jeep' dealers. Every merchant—especially in and around cities—is a prime prospect.

712 New Dealers Joined the Willys Team

In the 1955 calendar year, 712 new dealers joined the Willys dealer organization. Our files contain statements from many of these dealers relating what the 'Jeep' franchise meant to their 1955 profit picture.

Many of these new dealers spread their overhead by adding the 'Jeep' franchise to their existing line. With a small additional investment, they were able to make greater profits from their investment in facilities and in their Service and Sales Departments.

Gross Profit Comparisons by Dual Dealers

Dealers who added the 'Jeep' franchise to their present line were amazed when they sat down to compare the average gross profit per sale on 'Jeep' family vehicles with that of their passenger car line. In most cases, *after* the final wash-out, sales of 'Jeep' family vehicles resulted in much larger retained gross profits because:

REPORT FROM WILLYS

- a. Willys dealers have no wheeling and dealing competition down the street.
- b. Used 'Jeep' vehicle resale value is far greater than that of most vehicles. For example, two year old Universal 'Jeeps' sell for 90.2% of factory list price.
- c. 49.8% of 'Jeep' vehicle retail sales are clean deals.
- d. Many 'Jeep' vehicle sales include substantial additional profits from the sale of special equipment, either at the time of original sale, or months later, when owners have new jobs to do.

Willys Dealers Enjoyed One of Their Best Profit Years

Along with increased vehicle volume, Willys dealers enjoyed a higher than ever volume of specialized equipment sales at excellent gross profit margins.

Even with the increased volume, 49.8% of all 'Jeep' vehicle sales were clean deals.

As a result, Willys dealers reported excellent profits. This is a notable exception in a year when so many volume dealers found that, after the washout, they had made little or no profit.

The Factory Showed a Substantial Profit

Things are happening at Willys...there's an exciting feeling in the air...it's a Company on the move...the latest audited figures show Willys operating at a substantial profit.

Increased Advertising and Merchandising Support

In more than 50 magazines, factory-paid advertising, month in and month out, is beaming specific messages about specialized work applications to 27 classes of potential users of 'Jeep' vehicles, from contractors to fruit growers.

'Jeep' vehicle sales have also been supported by extensive local advertising, in several thousand newspapers, and by spot radio and television.

Dealers in increasing numbers are taking advantage of a

complete direct mail program, new merchandising and equipment manuals, pin-pointed promotional literature, vehicle merchandising kits, and an extensive array of other selling aids.

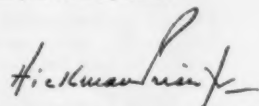
The 1956 Outlook Promises Further Sales Increases

Willys 1956 sales and advertising budgets are based on a further increase in sales of 'Jeep' vehicles during 1956.

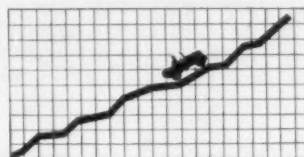
We congratulate Willys dealers on their accomplishments of 1955. We pledge them increased Factory support for 1956 to help them maintain and extend Willys leadership in its specialized field.

And to those automotive dealers who are wondering how they can produce a satisfactory return on their investment, and who are located where 'Jeep' family vehicles do not have complete representation, we extend a cordial invitation to get the facts about the Willys franchise—either as a substitute for—or possibly an addition to—their present line. Each open point offers a substantial future to the right man.

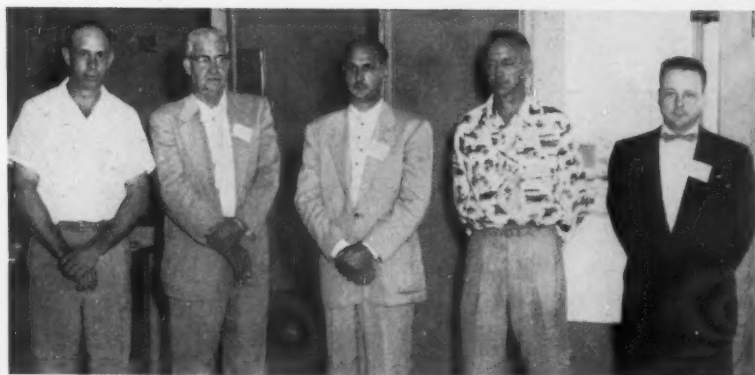
For complete information write to: Dealer Development Department, Willys Motors, Inc., Toledo 1, Ohio.



WILLYS MOTORS, INC.



WILLYS...the company on the move!



RECENT ELECTIONS of the Wichita Chapter of the Independent Garage Owners of Kansas saw the following officers take over the reins for the coming year. From left to right (in the photograph at left) are Al Greiving, treasurer; Art Kittell, director; Ed Hudson, president; Ernie Welborn, vice president; and Jess Saunders, director.

Herbrand Announces Mechanics' Contest

Herbrand Tools, Fremont, Ohio, tool supplier to the Indianapolis Speedway, has announced its annual "500" contest.

This contest is open to all automobile mechanics. Contestants must guess the winner's speed in the Indianapolis "500" Speedway Race, to the nearest three decimal places, using the official entry blank which is available from all Herbrand tool jobbers. Eight contestants, in 1955, guessed the winner's average speed to three decimal points.

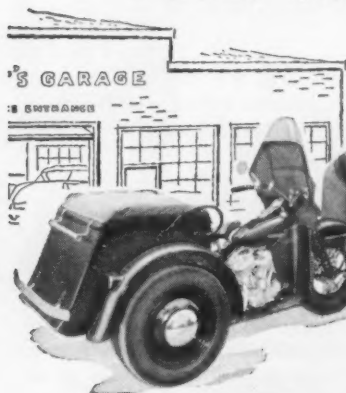
There are fifteen prizes, ranging from a tool set and cabinet, worth \$250, to tool sets and assortments. Contest closes at midnight, April 15, 1956, and winners according to Herbrand will be announced one week after the "500" race.



AWARD of Merit, is presented to James D. Abeles, (right), President, Purolator Products, Inc., by Robert A. Brooks, Safety Engineer of the Liberty Mutual Insurance Company, Boston. The award is for 1,036,476 hours worked by Purolator employees without a lost time accident. It is the second safety award for Purolator within a two year period.

You can feel on top of the world without going under the table.

*"handiest
business-builder
I ever had!"*



NEW 1956
**HARLEY-DAVIDSON
SERVI-CAR**

That's a typical remark of automobile dealers, garage and filling station operators who use Harley-Davidson Servi-Cars. And owners all over the country tell us that a single Servi-Car has added many square miles to their service territory . . . more than doubled their business.

Your customers, too, will love your "pick-up and deliver" service. And you'll like the time and manpower savings . . . the bigger year 'round volume your Servi-Car brings in.

Ask your Harley-Davidson dealer for a FREE copy of booklet: "It Pays to Give Service." Or write: HARLEY-DAVIDSON MOTOR COMPANY, Department MA, Milwaukee 1, Wisconsin.

servi-car service

**sells
more
service**

Has triggermatic control and 2 spot-lights. Heats in 5 seconds. Complete with wire brush to clean parts, solderer's aid for twisting wire, and Kester solder—all in handy storage case. A \$7.95 value—



WELLER INSTANT-HEAT
SOLDER GUN

FREE

with 3 cases of Du Pont Spring Drain-out Chemicals!

1 case new DU PONT FAST FLUSH —the 10-minute radiator cleaner

- A fast way to sell the new **SPRING DRAIN-OUT SERVICE**.

Liquid Du Pont Fast Flush cleans out rust and grease in a few minutes...drains out with the old anti-freeze solution, earns profits fast!



2 cases DU PONT LIQUID ANTI-RUST —protection every car needs

- Prevents rusting in the cooling system. Completes your profitable **DRAIN-OUT SERVICE**.

Du Pont Liquid Anti-Rust simply pours in and stays in—protects the cooling system throughout the summer.



To get your free solder-gun kit, worth \$7.95 at retail, order two cases of Du Pont Liquid Anti-Rust and a case of Du Pont Fast Flush from your jobber now. In addition, you can get free **DU PONT SPRING DRAIN-OUT** window banners that tie in with the national advertising!



DU PONT No. "7" PRODUCTS

From Chemical Research ... for Easier Car Care

NOW G-E *All-Weather* HEADLAMPS with Aim-right Gizmos for quick, accurate aiming



FEATURES TO HELP SELL PAIRS



1 Aim-right Gizmos are glass pads molded in G-E *All-Weather* Headlamp lenses to help aim headlamps in aiming machines quickly and easily. Gizmos are smooth—they hug the lens surface... are not vulnerable to breaking, chipping or cracking. (See aiming machine mfgs. instructions).

2 G-E *All-Weather* Headlamps with Aim-right Gizmos can be aimed on *any* aiming machine... standard G-E *All-Weather* Headlamps can be aimed by *all* aiming devices *except* one, at this time.

3 The G-E shield covers the *lower beam* filament *only*. It cuts off uncontrolled upward light which, in ordinary headlamps, reflects back in the motorists' eyes during rain, snow, fog or sleet. The *upper beam* filament is purposely *unshielded* to provide maximum light for seeing hills, curves and dips in *clear* weather.

4 The redesigned lens-reflector combination directs light from lower beam up to 80 feet further along the right side of the road. Passing is easier.

5 Lead-in wires are preformed—natural "spring action" is eliminated—keeps filaments from being pulled out of focus.

SUGGESTED DEALER NET COST AND RETAIL PRICES OF GENERAL ELECTRIC *All-Weather* HEADLAMPS

with Aim-right Gizmos

5040S (6-volt) SUG. NET COST
5400S (12-volt) **\$1.31 ea.***

**Suggested
Retail Price \$2.30 ea.**

*with \$20 net order. Prices to nearest cent.
All prices include federal excise tax.

Standard (without Gizmos)

5040 (6-volt) SUG. NET COST
5400 (12-volt) **\$1.27 ea.***

**Suggested
Retail Price \$2.20 ea.**

*with \$20 net order. Prices to nearest cent.
All prices include federal excise tax.

IN APRIL G-E *All-Weather* HEADLAMPS featured in 3 point "Buy-a-Pair" Campaign!



"Buy-a-Pair" featured on "MEDIC"—TV

TV commercials on General Electric's award winning television program, "MEDIC" will show motorists how G-E *All-Weather* Headlamps make night driving safer in bad weather and clear weather, too! These commercials will be seen and heard by some 25,000,000 people over 80 NBC stations, April 9th and 16th, 9 to 9:30 PM, EST. They will help you sell pairs of G-E *All-Weather* Headlamps.



"Buy-a-Pair" featured in MAGAZINES

During April and May your customers will read about G-E *All-Weather* Headlamps in 12 dramatic ads in these seven top circulation magazines: Look, Saturday Evening Post, Colliers, Popular Science, Popular Mechanics, Farm Journal and Progressive Farmer. These ads will reach practically every car owner in your area, and also help you sell pairs of new G-E *All-Weather* Headlamps.



"Buy-a-Pair" featured in STORE DISPLAY

Colorful display material is available from your distributor: streamers with "eye" appeal for windows and inside use; four humorous cartoon cards, highlighting two searching eyes behind a windshield, play up bad weather driving hazards.

These may be used for window, shelf or counter displays. Build a display to flag down prospects for profitable extra sales of G-E *All-Weather* Headlamps in pairs.

How to get the most out of an Aiming Machine or Screen

1 To sell pairs of G-E *All-Weather* Headlamps, first sell customers on the new safer seeing advantages. Then explain that proper aiming makes sure they get the maximum benefits built into G-E *All-Weather* Headlamps. When you sell a pair of new lamps and an aiming job, you make a profit on the lamps and the aiming too!

2 After you've sold the new lamps and the aiming job, tell the customers to come back in a few months to have the aim checked again—because road shock

and vibration can cause them to get out of aim. This sets up a re-aiming job—at a profit to you!

3 Many states and cities have inspection periods that require proper aim of headlamps. Owning an aiming device will help you cash in on this substantial business. But inspection periods or not—headlamps should be checked for aim at least once every six months. Miniature Lamp Dept., General Electric Co., Nela Park, Cleveland 12, Ohio.

HERE'S A PROFIT-MAKING SUGGESTION!

If you wish, you can sell a pair of new G-E *All-Weather* Headlamps for \$5.95—installed and aimed! Make a nice profit on the sale of two lamps and aiming service—help pay for your aiming machine fast!

Order a supply of General Electric *All-Weather* Headlamps today. Display and Sell them in pairs!

GENERAL  ELECTRIC

Calendar of Coming Events

Dealers Conventions

May 14-15—Pennsylvania Automotive Assn., The Inn, Buck Hill Falls, Pa.
May 26-28—South Carolina Automobile Dealers Assn., Ocean Forest Hotel, Myrtle Beach, S. C.
June 25-27—Michigan Automobile Dealers Assn., Hotel Olds, Lansing, Mich.
June 28-July 1—New York State Automobile Dealers, Inc., Directors and County Vice-Pres. Spring Meeting, Lake Placid Club, Lake Placid, N. Y.
Sept. 17-18—Minnesota Automobile

Dealers Assn., St. Paul Hotel, St. Paul, Minn.

Sept. 30-Oct. 3—New York State Automobile Dealers, Inc., 33rd Annual Convention, The Concord, Kiamasha Lake, N. Y.

Oct. 21-23—Florida Automobile Dealers Assn., Fort Harrison Hotel, Clearwater, Fla.

Nov. 11-13—Kentucky Automobile Dealers Assn., Seelbach Hotel, Louisville, Kentucky.

Dec. 2-4—Ohio Automotive Dealers Assn., Cleveland, Ohio.

Automobile Shows

March 16-18—Wichita Auto Show, University of Wichita Field House, Wichita, Kansas.

March 20-27—Danville Auto Show, Neal's Tobacco Warehouse, Danville, Va.

March 27-April 3—Raleigh Auto Show, William Neal Reynolds Coliseum, Raleigh, N. C.

March 27-April 3—Rocky Mount Auto Show, Rocky Mount, N. C.

April—Lewiston Auto Show, Lewiston Armory, Lewiston, Me.

April 3-10—Lynchburg Auto Show, Big Farmer's Warehouse, Lynchburg, Va.

Jan. 5-13—Chicago Auto Show, International Amphitheatre, Chicago, Ill.

General

March 19-21—Society of Automotive Engineers, Production Meeting and Forum, Hotel Statler, Cleveland, Ohio.

March 24-Apr. 1—General Motors Motorama, Civic Auditorium, San Francisco, Calif.

Apr. 6-8—Independent Garage Owners of America, annual meeting, Wichita, Kansas.

Apr. 11-14—Middle Atlantic Regional Automotive Show, Commercial Museum, Philadelphia, Pa.

Apr. 16-20—New York's Annual Safety Convention and Exposition, Hotel Statler, New York, N. Y.

Apr. 19-29—General Motors Motorama, National Guard Armory, Boston, Mass.

April 28-May 6—International Automobile Show, Exhibition Hall, Coliseum, New York, N. Y.

June 3-8—Society of Automotive Engineers Summer Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 20-22—Automotive Parts, Rebuilders Association Convention and Trade Show, Edgewater Beach Hotel, Chicago, Ill.



POWER- PACKED PACKAGE... *that's* MUSTANG

**1. NEW POWER —
AT LOWEST COST —
FOR YOUR CUSTOMERS' CARS**

**2. New PROFIT POWER
for YOU ...
because you can make
\$10.00 an hour when you**

EXCHANGE WITH MUSTANG!



- NEW STYLE CAMSHAFT means 15 per cent greater horsepower — more gas mileage — longer valve life — perfect valve action — better compression
- Every MUSTANG is accompanied by a "Test Record" showing compression and oil pressure
- Every MUSTANG carries a NATION-WIDE Guarantee

Start NOW to earn QUICK — SURE PROFITS with MUSTANG

Mustang Exchange Engines Are A Product of Rebuilders, Inc., Garland, Texas

Your inquiry is invited. Use this coupon for full details without obligation

YES, we want more information on the MUSTANG PROFIT DEAL

COPYRIGHT 1956 BY MUSTANG EXCH. REBUILDERS INC. GARLAND, TEXAS

Firm Name _____

Address _____

City _____ State _____

Your Name and Title _____

Flexible Tubing

A new, specially processed, flexible nylon tubing, trademarked NYLAFLOW, will be shown by The Polymer Corporation of Pennsylvania at the 1956 American Society of Lubrication Engineers Annual Meeting and Exhibit to be held at Hotel William Penn, Pittsburgh, on April 4, 5, 6.

NYLAFLOW tubing has been used successfully as a conveyor for air, gas and liquids. Lincoln Engineering Co. first introduced it to the lubrication field with their "Multi-Luber" push button lubrication system for automobiles. It has since been engineered for hydraulic, air, vacuum, fuel and oil lines.

TRAFFIC-STOPPER!

*the best
bonded lining is*

GRIZZLY Saftibond® BRAKE LINING

Nothing stops cars in their tracks like GRIZZLY SAFTIBOND Brake Lining—regular duty and premium. They're extra-tough, extra-dense bonded lining especially designed for tough "stop and go" traffic... glazeproof, waterproof, and fade-resistant. GRIZZLY SAFTIBOND Premium Lining is the finest made... a tougher lining that provides vastly greater safe mileage, in spite of power brakes, automatic transmissions and more powerful engines. GRIZZLY SAFTIBOND Regular Duty Lining gives more dependable, more positive braking action under all normal day-to-day driving conditions. Premium or Regular Duty, nothing stops customers in their tracks like the GRIZZLY brand... they know and trust it for top quality. Why not ask your Grizzly Distributor for details... today!

GRIZZLY MANUFACTURING DIVISION

Paulding, Ohio

Saftibonded

FOR THE LIFE OF THE LINING



A special bonding agent is applied at the factory, providing exactly the proper application for the thermo-setting process that assures perfect end-to-end seating of brake lining against brake shoe. Lining will not separate, swell, pull off or work loose!



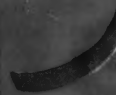
The pioneer of bonded
linings for the Automotive
Replacement Parts Industry



GRIZZLY
SAFTIBOND
BRAKE SHOE
SETS



GRIZZLY
BRAKE
LINING
for RIVETING



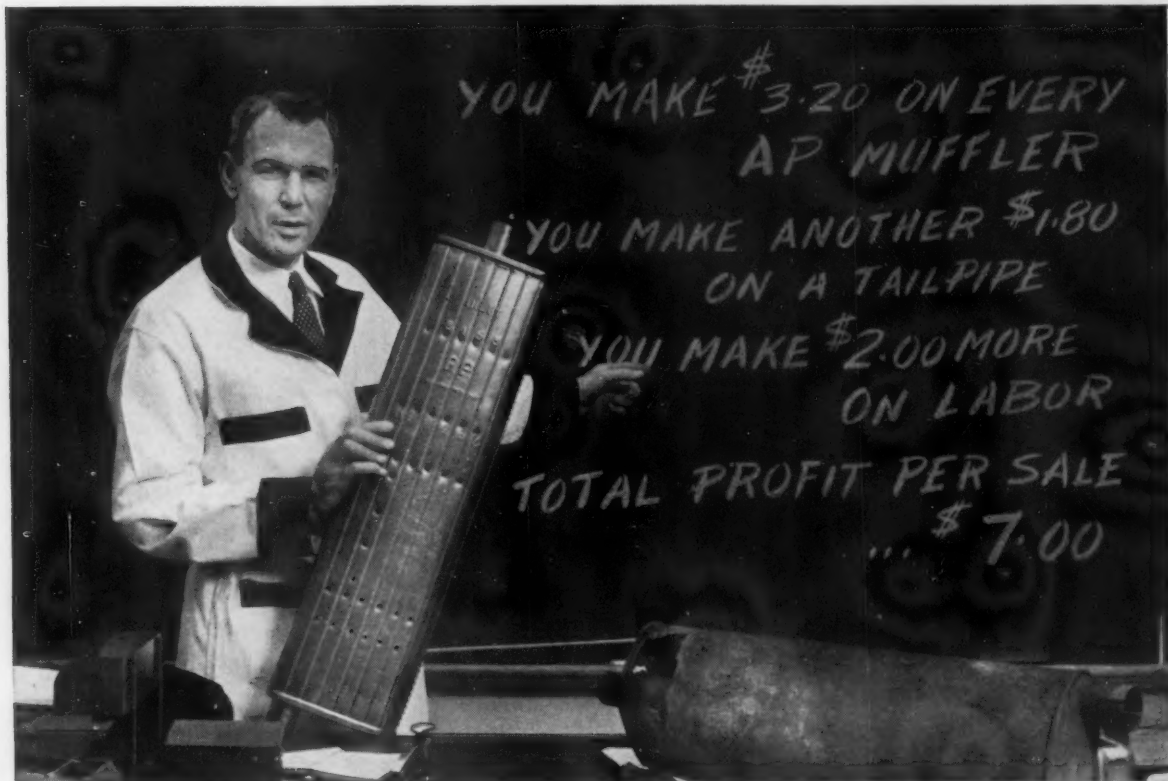
GRIZZLY
BRAKE LINING
for LIGHT
TRUCKS



GRIZZLY
SILVERTIP
BRAKE
BLOCKS

TAP, LOOK AND LISTEN YOUR WAY

Become an AP Muffler Specialist and



TAP, LOOK and LISTEN is the slogan of a hard-hitting program that's helping AP Muffler Specialists make big profits in a doubling market (this year the big majority of car manufacturers will feature dual exhaust systems). Profit from this program yourself. Register with your AP wholesaler, get a basic minimum stock, and examine every muffler that comes into your shop. Do it systematically and you'll make at least six extra sales a week for the next 50 weeks—a total of \$2100 extra profit—because *one out of every two cars* you service will need a muffler or a pipe*—or both.

The advance-design AP muffler has up to 40% heavier steels, double crimp-locked seams, high-frequency-control intermediate shell. Seam-welded inner tubes with extruded holes make it practically clogproof. Its patented $\frac{1}{2}$ thicker "Air Liner" shell—featured on more than 70% of all AP mufflers—creates sound-deadening chambers that insulate against both heat and noise. And AP provides asbestos liners wherever needed—plus corrosion-resistant coated steels for many numbers. In recent tests made by Motor Vehicle Research, an independent testing laboratory, AP surpassed the three leading competitive mufflers, including the car factory replacement—thereby winning the coveted MVR "Certified Test

*Shell Oil survey of retail potential for 1956

Award." It proved convincingly that AP mufflers are engineered for longest life, plus greatest silence and lowest back pressure.

So install AP. Give your customers—at no extra cost to them—the power, mileage and long life they want—plus better protection against carbon monoxide gas. Ask your jobber to show you the AP "Inside Story." It's an eye-opener.



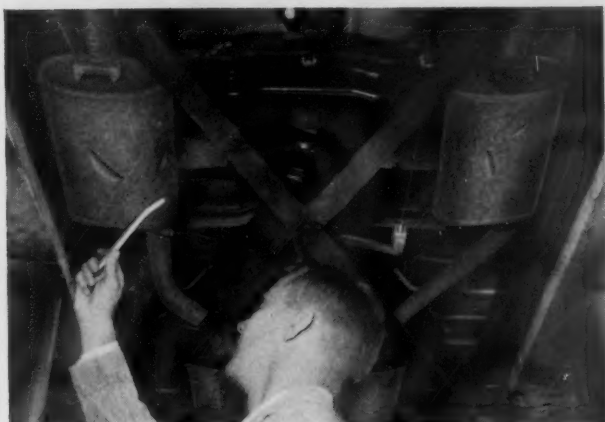
In recent tests made by Motor Vehicle Research, the AP passenger car muffler (foreground) withstood this crushing 4720 lb. wheel load far better than the other leading makes.



LONGER-LASTING MUFFLERS—DESIGNED FOR TODAY'S

TO BIG MUFFLER PROFITS WITH AP

make at least \$2100 extra a year



Note the AP muffer removal tool shown above. It cuts the average installation time in half. Ask your AP wholesaler about it. Note also the four mufflers in this Lincoln exhaust system. They give some idea of how the muffer market is expanding.



This mobile merchandiser of basic muffer stock has proved to be an extremely effective aid in the sale of AP mufflers. It has good display value and can be easily moved in and out on its wheeled rack. Get one. Available from your AP wholesaler.

AP PROVIDES YOU WITH EFFECTIVE SALES AIDS...BACKS YOU UP WITH DRAMATIC, HARD-SELLING NATIONAL ADVERTISING



Your initial sales package will include a "How to" booklet, posters, post cards, inspection tags, a decal, a catalog, and price sheets. Then AP mails direct to you a constant flow of additional sales aids, and of up-to-date price and catalog data.



Dramatic ads in these publications will be read by hundreds of your customers and prospects. They'll do a lot of advance selling for you.

THIS FREE SIGN IDENTIFIES YOU

Put it where it will be seen. Then TAP, LOOK and LISTEN the easy AP way for muffer profits.

THE AP PARTS CORPORATION


3-P AP Building, Toledo 1, Ohio

Mufflers and Pipes • Miracle Power • dgf 123



HIGH-COMPRESSION ENGINES

Chilton's MOTOR AGE, MARCH, 1956



Get the biggest profit

**EVER
OFFERED
ON
SHOCK
ABSORBERS**

*Make \$18.88 PROFIT for an hours work**

*\$3.72 profit plus \$1.00 labor per shock

Sell BRIGGS HYDRO-MUSCLE ride control



◀ NATIONAL ADS LIKE THESE TO HELP YOU SELL

PLUS
DEALER HELPS TO SELL YOUR CUSTOMERS IN YOUR PLACE OF BUSINESS ▶

REMEMBER—your customers will insist on BRIGGS HYDRO-MUSCLE RIDE CONTROL "for the ride of your life . . . for the life of your car."



BRIGGS

Call your BRIGGS shock absorber jobber today. Learn about the BIG profits you can make selling BRIGGS HYDRO-MUSCLE RIDE CONTROL. Just think . . . \$18.88 for an hour's work or less! It's the biggest profit story in the after market for dealers. Don't wait! Call today! You'll sell Briggs shock absorbers more quickly and easily because they're the finest shock absorbers built.

Display rack and assortment to sell 90% of your customers



Attractive counter or window display



Handout sales literature that sells BRIGGS to your customers



Decal that identifies your place of business as BRIGGS headquarters

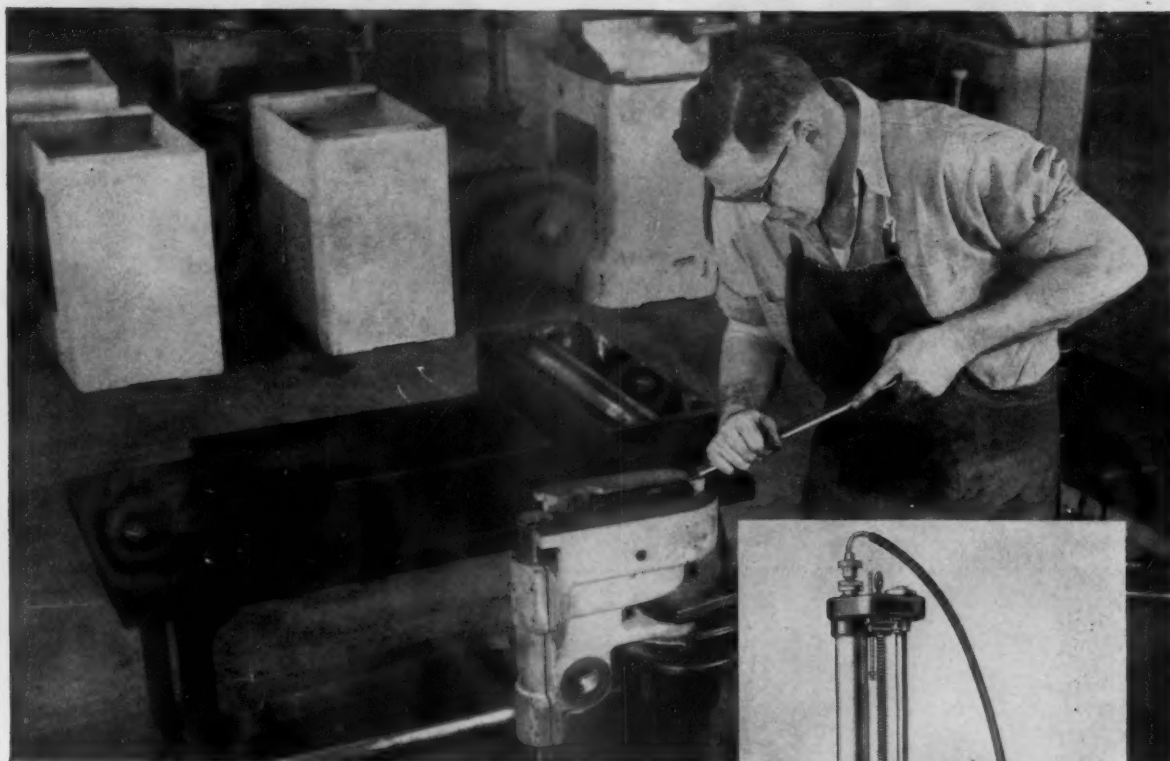


and many others including lapel tags, steering wheel tags, wall chart, etc. . . . write today for complete information

SHOCK ABSORBER COMPANY

1148 Euclid Ave., Cleveland 15, Ohio

Another reason why Kwik-Way machines last longer, assure precision

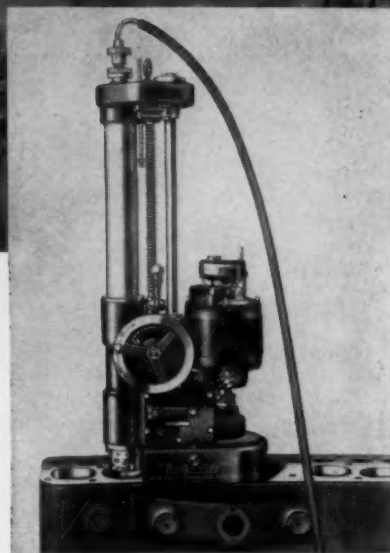


Removing $\frac{1}{10,000}$ th inch of metal by hand

The critical surfaces of every Kwik-Way machine are hand scraped. An important reason why Kwik-Way Cylinder Boring Machines produce true, straight cylinder walls completely free from taper. *Only hand scraping by expert craftsmen* can insure that the base of the machine will make a perfect right angle to the center line of the boring sleeve. Often the amount of metal removed by this process measures no more than one ten thousandth of an inch. But this tiny fraction of an inch can mean the difference between turning out an average job and a precision Kwik-Way job.

Perfectly true master plates are covered with Prussian Blue, then placed against the surface to be leveled. The Blue transfers to the high spots. These spots are hand scraped, and this process is repeated until the Blue from the master plate evenly covers the surface to be leveled.

One of the many reasons why Kwik-Way Cylinder Boring Machines are unmatched for precision.



Kwik-Way Cylinder Boring Machines—for easy set-up, fast operation, precision results.

- Overhead chip removal with Vortex exhaustive device.
- Screw feed with automatic retraction.
- Three finger centering for maximum accuracy.
- Rigid construction — no additional supporting devices necessary.
- Quick, easy, accurate tool setting eliminates "sense of feel."

Precision - Speed - Long Life

Kwik-Way

Engine Reconditioning Equipment

Write today for illustrated brochure
CEDAR RAPIDS ENGINEERING CO.
 917 17th Street, N.E.
 Cedar Rapids, Iowa

MAKE \$30.-



New Gabriel selling tools: attendants' badges, hand-out folders, sliderule application data, tie-in window poster.

\$40 A DAY !

with Gabriel's exclusive shock absorber tester

BRAND NEW...NO COST TO YOU!

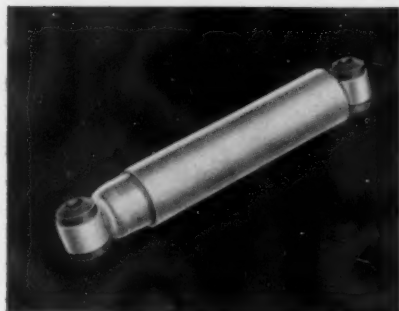
Here, at last, is a *practical* shock absorber sales convincer... a sure way to make \$30-\$40 clear profit every day—easier than you've ever had it before!

Ask your Gabriel Jobber for the new Shock Tester illustrated here. Use it to *show* your customers that their shocks are shot. The test is easy and foolproof. It takes only 3 minutes or less. And the reward is tremendous: A better, safer ride for your customers! A minimum profit of \$14.88* *plus labor* for every four Gabriel HydrOshox you sell!

Remember—3 cars in every 5 need new shocks now. With Gabriel's new tester to pick 'em out for you, two jobs a day—\$30-\$40 into your cash register—is a sure thing. Get going... get Gabriel! *Stocking dealer price schedule



© 1956 THE GABRIEL COMPANY, CLEVELAND, OHIO



Gabriel

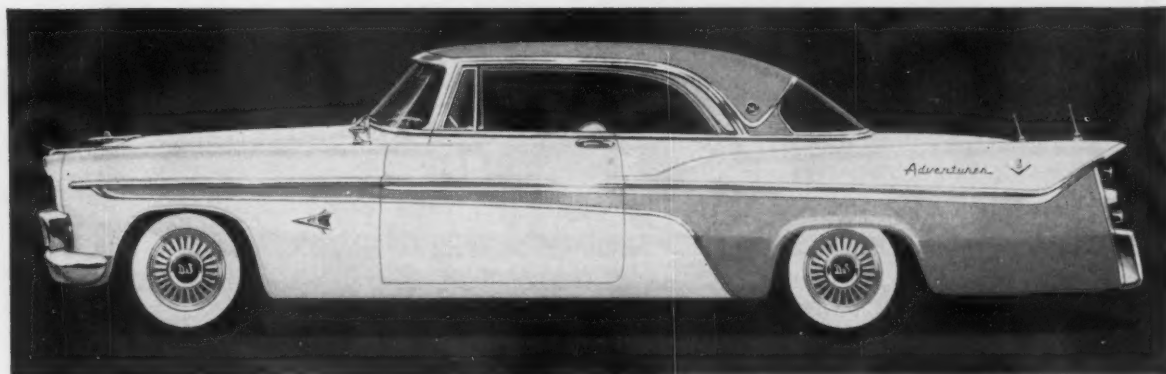
SHOCK ABSORBERS

HERE'S DE SOTO'S



OFFICIAL PACE CAR INDIANAPOLIS "500"

ONE-TWO SALES PUNCH



320 HP GOLDEN ADVENTURER

FOR MARCH

DE SOTO IS REALLY MOVING IN 1956

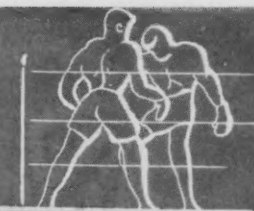
De Soto sales were up a whopping 70% in 1955. And brother if you thought that was something for us to crow about wait'll you watch the high-stepping, fast moving De Soto go in '56.

Look what's happening in March alone . . . De Soto named official Pace Car for the Indianapolis "500" . . . followed by the announcement of the red hot De Soto

Golden Adventurer, 320 horsepower of tremendous sales punch.

It sure doesn't take much of a forecaster's eye to see that De Soto's making the push to rack up the records in '56. Anyway you want to look at it . . . power, performance, style or promotion . . . De Soto's really moving in '56.

IT PAYS TO BE A DE SOTO DEALER



YOUR TICKET TO A WINNING COMBINATION

JOHN BEAN
LANSING 4, MICHIGAN

Division of Food Machinery
and Chemical Corporation

For a ring side seat to look over products that will ring your cash register, mail this coupon.

- ☐ Send information on the new adjustable Visualiner. ☐ Send information on modernizing present alignment equipment.

Name _____

Address _____

Zone _____

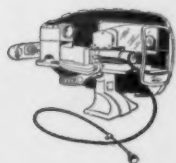
State _____

City _____

For a winning combination that will

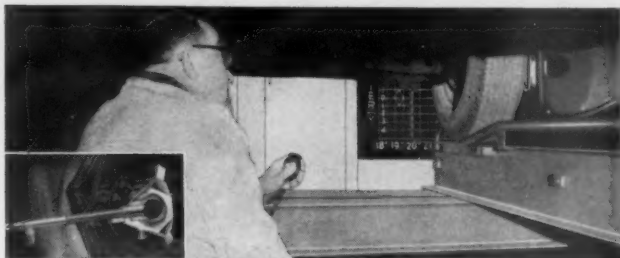
put more wheel aligning profits in your pocket, John Bean engineers have now combined Visualiner precision with more speed and new, revolutionary adjustability.

Send today for complete facts on these time and labor-saving features . . . the remote steering wheel turner; remote chart control; exclusive Visualiner long-life lamps; complete tread-width adaptability and easy rear wheel alignment.



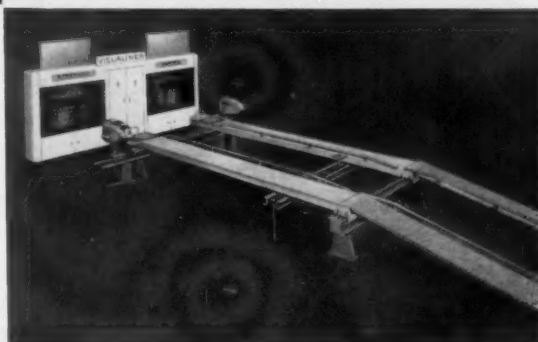
FINGER-TIP CONTROL FROM UNDER THE CAR

With the new 1956 John Bean Visualiner you can check and control everything from under the car without taking a single step! With finger tip controls you can turn the steering wheel and check caster, camber, toe-in and steering geometry. You can knock out more jobs in a day . . . step up profits. Present equipment may be modernized with these remote controls.



NEW ADJUSTABLE VISUALINER

Foreign cars? Sports cars? Passenger cars? Light trucks? Yes! The new adjustable Visualiner handles them all — any tread width from 40" to 66". And it's easy. In a matter of seconds, you can adjust the ball and roller bearing-mounted heads and runways to any desired tread width. Both floor and pit-types are available, as well as changeovers for modernizing your present installation. You get all this, plus the same pinpoint accuracy that has always been built into John Bean equipment — the aligning accuracy demanded by automobile and tire manufacturers for their engineering, final assembly and service departments.



Other outstanding John Bean service equipment: Frame Straighteners, Wheel Balancers, Tire De-Skidders, Steam Cleaners, Car Washers, Headlight Testers, Accessories and Allied Tools. Complete catalog on request.



John BEAN [®]

Division of Food Machinery
and Chemical Corporation

LANSING 4, MICHIGAN

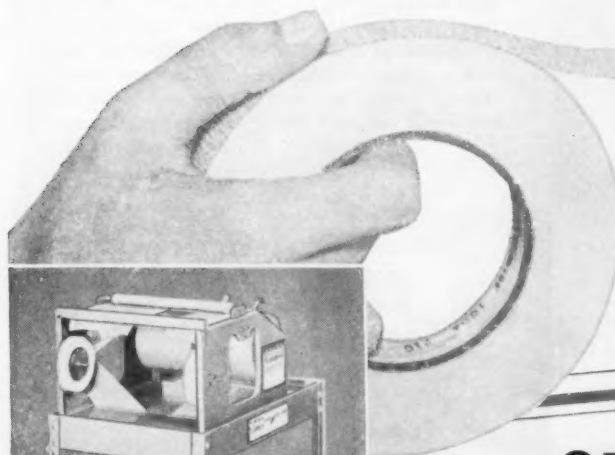




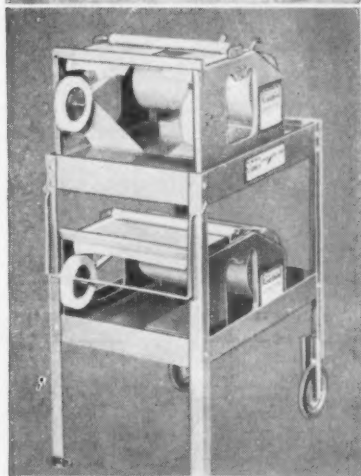
Only REG. U. S. PAT. OFF. **SCOTCH** BRAND Masking Tape

Sticks so fast—conforms so well—unwinds so easily!

ALL THE HANDLING CHARACTERISTICS YOU NEED to turn out neater repaint jobs in less time are yours in famous "SCOTCH" Brand Masking Tape. Instant adhesion . . . flexibility . . . dead stretch . . . thinness . . . easy unwind . . . "weather" balance. "SCOTCH" Brand gives you a superior masking tape that's been a favorite for over 30 years!



Where quality repainting is a must, remember — *only* "SCOTCH" Brand Masking Tape handles so well and so easily. Order some today!



"SCOTCH" MULTIPLE APRON TAPER set-up delivers pre-taped aprons in choice of 3 widths: 6" and 3" or 9" and 3" from upper shelf unit. Unit on lower shelf of "SCOTCH" stand furnishes aprons 12" wide.

3M Automotive Products

Order now from your 3M Jobber

Ask your 3M Salesman about the 3M "Bumper-to-Bumper" Masking System



The term "SCOTCH" and the plaid design are registered trademarks of Minnesota Mining and Manufacturing Company, St. Paul 6, Minnesota. Export Sales Office: 99 Park Avenue, New York 16, N.Y. In Canada: P.O. Box 757, London, Ontario.



Measure camshaft wear

Exactly

**IN JUST
30 MINUTES
OR LESS**

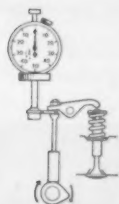


This new instrument gives you fast, micrometer-accurate cam lift measurement! Camshafts are gauged right in the engine in 30 minutes or less.

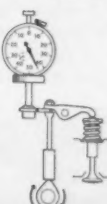
Here's how:

Cam-Chek guide bars (available now for most all over-head-valve engines) are quickly bolted to the cylinder head. They are machined to center the Cam-Chek dial indicator directly over, and parallel, with each pushrod. Cam-Chek then records the pushrod's maximum upward movement — the exact cam lift.

HOW CAM-CHEK WORKS



On the cam base circle the pushrod is at its lowest point. Cam-Chek exactly aligned with the pushrod, is set at zero.



Turn engine over with starter. Dial indicator measures lobe lift. Special brake holds indicator needle at highest reading.

Announcing
a vital new test tool

P&G
Cam-Chek

from manufacturers of
the P&G Valve-Gapper

Accurate readings for mechanical or hydraulic lifters

Lift measurements with Cam-Chek are accurate to .001 of an inch — whether engines have mechanical or hydraulic valve lifters. Spring pressure in the Cam-Chek dial indicator is very slight. It will not collapse even defective hydraulic lifters.

Cam-Chek ends wasted camshaft-pulling

Cam-Chek gives you quick, scientific camshaft analysis. You know *before* you tear an engine down if worn cams are the trouble. Cam-Chek prevents many costly mistakes.

Often just one tear-down job prevented with Cam-Chek will completely pay for this vital new test instrument!

ASK YOUR SUPPLIER FOR THE NEW P&G CAM-CHEK

—or send this coupon NOW for complete information and prices

P&G MANUFACTURING COMPANY

303 N. E. Russell St., Portland 12, Oregon

Please send me complete information and prices on the new P&G Cam-Chek.

Name _____

Address _____

City _____ State _____

Your Jobber _____

SEND COUPON NOW!

N.A.P.A. "Parade of Parts"

FOR CARS • TRUCKS • TRACTORS — ALL MAKES • ALL AGES

**Nationally Advertised
Brands of Genuine Quality**

**All Identified by
the N·A·P·A Seal**

**All Quickly Available to
You from One Friendly,
Cooperative Source—
Your N·A·P·A Jobber**

**All Advertised to
Your Customers in
The Saturday Evening Post**



Your N·A·P·A Jobber has the most complete array of nationally advertised quality products ever available from one nearby source of supply.

During the N·A·P·A nation-wide "Parade of Parts" he will join with thousands of other N·A·P·A Jobbers to spotlight the unparalleled service and selling advantages received only through N·A·P·A Jobbers.

Visit your N·A·P·A Jobber on this occasion. Learn how, as part of the nation's largest independent parts distrib-

uting system, he can save you time—and needless expense—when you concentrate your buying with him.

Get better acquainted with the wide variety of nationally advertised parts and supplies he stocks . . . Buy the April 7th issue of The Saturday Evening Post. (5,000,000 other people will.) Keep it in your shop—and point to the 4-page N·A·P·A advertisement to show your customers the quality of the parts you use in their cars.

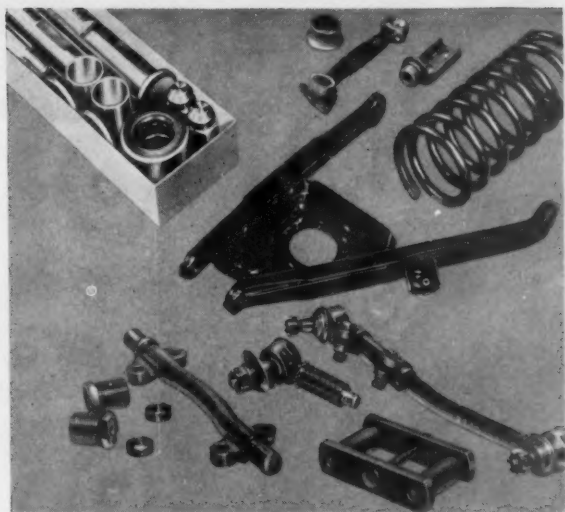
Your N·A·P·A Jobber is a Good Man to KNOW!

National Automotive Parts Association, Detroit, in behalf of the thousands of independent

N.A.P.A. JOBBERS

who supply the automotive repair trade from coast-to-coast with these—and many other—nationally advertised brands of quality automotive parts and supplies.

N.A.P.A.



Allied-Monmouth Chassis Parts

In Allied-Monmouth Chassis Parts, N•A•P•A Jobbers offer a complete line engineered and built to original equipment standards in materials and tolerances. Includes Wheel Suspension Parts, Coil Springs, Steering Parts, King Bolt Sets, Shackles, and Ball-Joint Suspension replacements. Make your N•A•P•A Jobber your headquarters for Chassis Parts.

ALLIED MOTOR PARTS COMPANY • DETROIT, MICHIGAN



Puritan Brake Fluid

Protect your customers—Protect your profits. Only the best brake fluid is good enough for your customers and you can afford to handle and sell only the best—Puritan Super 60. It's the top quality, top performance heavy duty brake fluid that meets and exceeds SAE Specification 70R1 by a wide range!

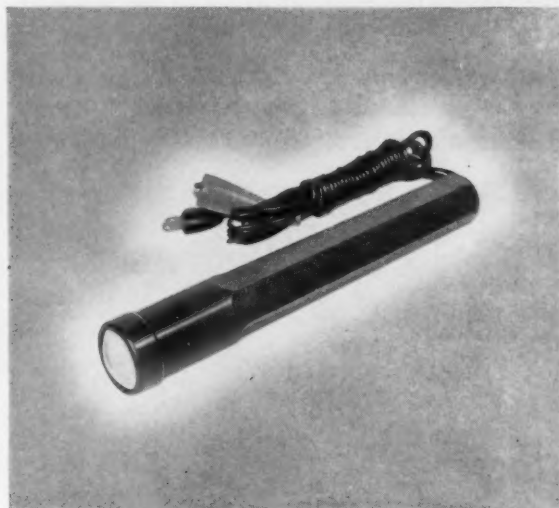
OLIN MATHIESON CHEMICAL CORPORATION • BALTIMORE 3, MD.



Briggs "Hydro-Muscle"® Ride Control

Car owners don't understand "shock absorbers." What they want and will buy is *Ride Control*—Briggs "Hydro-Muscle" Ride Control. A year-round safety necessity. Ask your jobber for the high-profit, fast-action assortment of 12 Briggs "Hydro-Muscles"—potent Muscle Man selling tools included FREE to tie in with big-space national ads.

THE BRIGGS SHOCK ABSORBER COMPANY • CLEVELAND, OHIO



B*K Power Timing Light

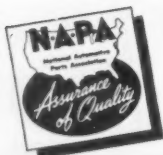
Here's a power timing light with brilliant flash that can be used on 6, 12, and 24 volt systems. Sturdy Bakelite case, heavy, durable lens, and a neon tube that can be easily and quickly replaced. A necessity for every shop tuning or repairing engines. See your nearest N•A•P•A Jobber for this and other precision testing equipment.

B*K SERVICE PRODUCTS • INDIANAPOLIS, INDIANA

"Parade of Parts"—the greatest in the industry

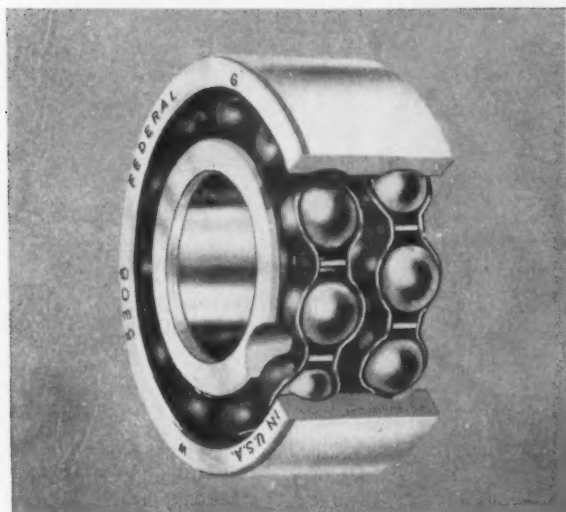


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N·A·P·A

"Parade



Federal Ball Bearings

Most complete ball bearing line for the automotive industry. Used as *original equipment* on millions of vehicles by leading manufacturers. Chosen by repairmen as the ideal replacement bearing. *Federal Ball Bearings* are dependable—backed by the dependable source of supply—your N·A·P·A Jobber!

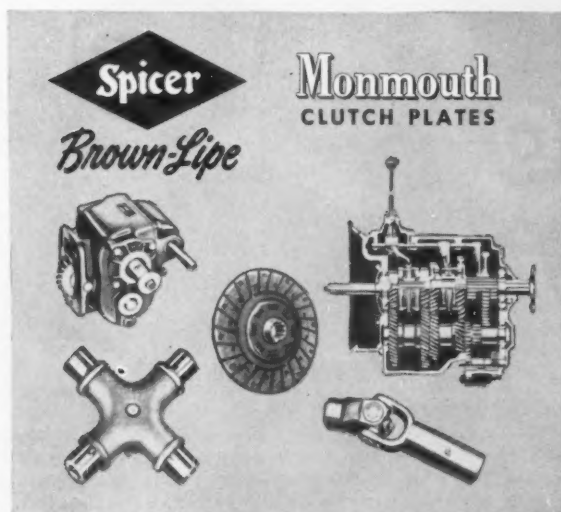
THE FEDERAL BEARINGS CO., INC. • POUGHKEEPSIE, NEW YORK



Allied Motor Parts

When new engine parts are needed, look to Allied and your N·A·P·A Jobber for the finest of parts, the fastest service and the most comprehensive coverage. The plants which produce Allied Motor Parts are all specialists in their fields, with engineering "know-how," production facilities and manufacturing capacity unsurpassed in the industry.

ALLIED MOTOR PARTS COMPANY • DETROIT, MICHIGAN



Dana Products

One or more Dana-made Products are in practically every automotive vehicle on the road: Spicer and "Mechanics-Type" Universal Joint Replacement Kits; Spicer "Brown-Lipe" Transmissions; Spicer Power Take-Offs and PTO Joints; and Monmouth Clutch Plates. Available through NAPA jobbers. For your profit and customer satisfaction, use DANA products.

"The Standard of the Industry!"

DANA CORPORATION • TOLEDO 1, OHIO



Job-Proved TALENT Tools

Precision-built Talent Tools are the result of over 30 years of electric tool experience. Each model is power-packed, compact and easy-to-handle. Disc Sanders, Polishers, Valve Seat Grinders, Valve Refacers and a complete range of Drills from 1/4" to 1" capacities . . . all built to meet the most exacting demands of automotive mechanics and service shops.

SKIL CORPORATION • CHICAGO 30, ILLINOIS

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of Parts"



nationally advertised brands for CARS, TRUCKS, TRACTORS • ALL MAKES • ALL AGES!



It's Powerful Quiet with a Soundmaster

POWERFUL because each muffler is designed to meet the special needs of a specific engine, to preserve all its flashing performance . . . **QUIET** because each noise condition is met individually, with laboratory tests to determine the one best construction to produce Quiet . . . **SAFE** because Soundmaster mechanical fit protects car owners against deadly "CO"!

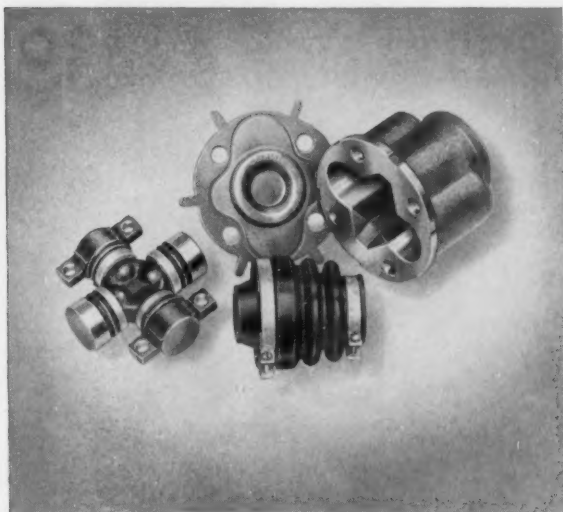
DE KOVEN MANUFACTURING COMPANY • RACINE, WISCONSIN



Thomson Thermostats—the complete line

To all cooling systems, Thomson Thermostats bring the advantages of the tight-sealing, trouble-free poppet valve. *For pressurized systems*, the revolutionary "HP" Stat with the exclusive reverse-action valve. . . . *For other systems*, the Thomson Electrofused bellows-type. Both widely used by vehicle makers—meet or surpass original equipment standards.

STANDARD-THOMSON CORPORATION • VANDALIA, OHIO



Detroit Universal Joints & Drive Shafts

Selection of DETROIT Universal Joints to propel today's super powered vehicles is the manufacturers' endorsement of their superior performance. When service parts are required, be sure to get genuine DETROIT Repair Kits from your local N•A•P•A Jobber; your assurance of service parts which duplicate the material supplied for Original Equipment.

DETROIT UNIVERSAL DIVISION • DEARBORN, MICHIGAN

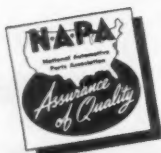


Duckworth Timing Chains

Often a "ring" job isn't the complete answer to motor "pep" . . . the kind your customer expects. Check the timing chain for wear and stretch. If replacement is needed recommend Duckworth (R) Monoflex Timing Chains for top motor performance, with gas and oil savings as an extra bonus. Result: "repeat" business that comes from real customer satisfaction.

CHAIN BELT COMPANY • SPRINGFIELD, MASSACHUSETTS

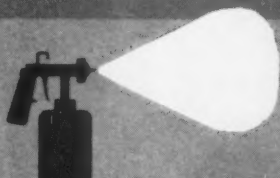
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N·A·P·A

"Parade

MARTIN-SENOUR

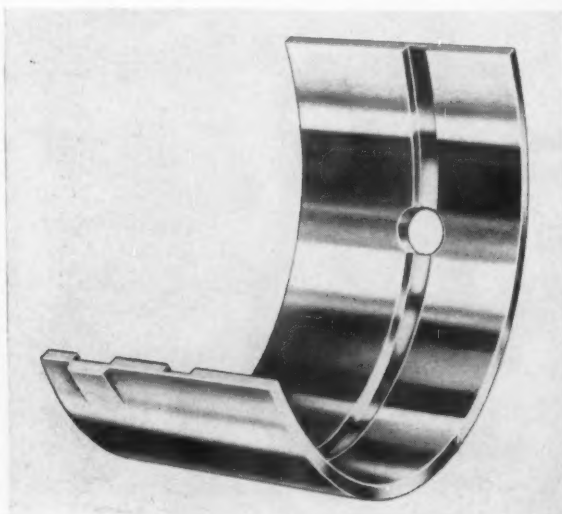


AUTOMOTIVE PAINT

Automotive Finishes

For full customer satisfaction on every refinishing job, use Martin-Senour products exclusively! Best color match, best blend-in, best gloss. Complete line of factory-packaged, factory-sealed products, from widest choice of colors to exactly the right thinner, reducer, primer and sealer for every job!

MARTIN-SENOUR, 2520 QUARRY STREET • CHICAGO, ILLINOIS



Monmouth Engine Bearings

MICRO AND CLEVITE 77

Designed Right—by the engineers who design most original equipment.

Made Right—by the world's largest bearing manufacturer.

Sold Right—N·A·P·A service.

CLEVITE SERVICE DIVISION • CLEVELAND, OHIO



B*K Huffman Service Station Equipment

N·A·P·A Jobbers are ready to supply the finest in service station equipment... B*K Huffman. When you select your next new equipment, choose with confidence the brand that has an engineered and field proven unit for every service station need... for every seasonal need. Choose B*K Huffman and rest assured that you have obtained the best.

B*K HUFFMAN • DELPHOS, OHIO



Visall Safety Products

Quality material... skilled engineering... know-how manufacturing. Turn signals, Turn Signal Switches. Clearance Marker, Fog and Driving, Backup, Utility, Emergency, Stop and Tail and Stop Lights. Passenger Car Mirrors. Truck Mirror Arms and Heads. Reflectors, Liquid and Reflector Flares. Safety Equipment for all Vehicles.

VEHICLE PRODUCTS COMPANY • CINCINNATI, OHIO

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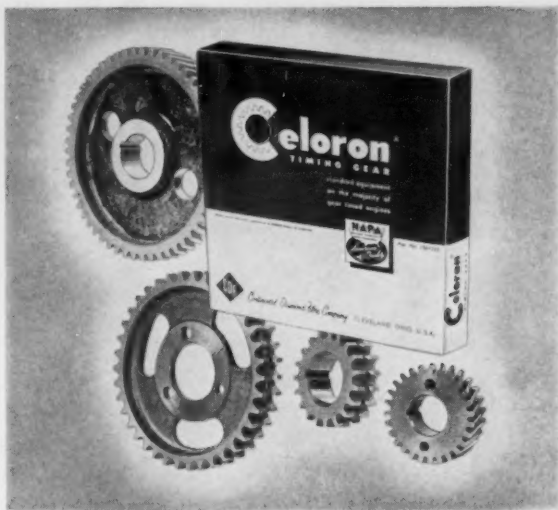
nationally advertised brands for CARS, TRUCKS, TRACTORS • ALL MAKES • ALL AGES!



For Wire Profits—Without Complaints

Use Belden—the Wiring Line that's complete for all service jobs—easy to stock—at a surprisingly low investment. Easier application means faster replacements. Belden Wire and Cables are engineered for modern cars, trucks, and buses—the line most servicemen use. Ask your Jobber Salesman.

BELDEN MANUFACTURING COMPANY • CHICAGO, ILLINOIS

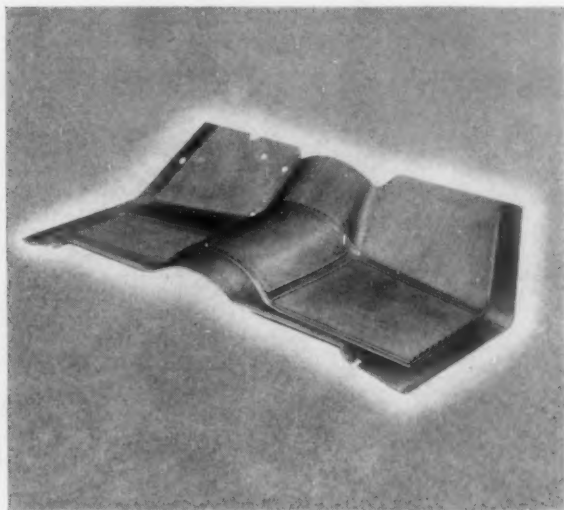


CELORON®

- TIMING GEARS
- MATCHED TIMING GEARS
- TIMING CHAIN SPROCKETS

"There Is No Substitute For Quality"

CONTINENTAL-DIAMOND FIBRE DIVISION • CLEVELAND, OHIO



Prospect Contoured Floor Mats

Prospect Floor Mats *fit better* and *wear longer* because the exact shape of the car floor is permanently built into the mat, and because they are engineered and constructed of the same quality materials supplied to car manufacturers. They are *easier to install* because holes for pedals, accelerator, etc., are *accurately pre-punched*, for old cars and new.

PROSPECT RUBBER CO. • CLEVELAND, OHIO

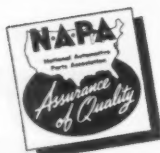


B*K Grease Fittings, Guns and Lubricators

You're ready for almost any job with this B*K Assortment of Universal Grease Fittings—No. 4-801—containing 100 of the nine most popular numbers. Other numbers you can get quickly from your N•A•P•A Jobber without overstocking. In addition, hand and pressure guns, including the portable B*K Aro-Pak Lubricator especially adapted for farm use.

B*K SERVICE PRODUCTS • INDIANAPOLIS, INDIANA

NAPA "PARADE OF PARTS" (continues)



N.A.P.A.

"Parade



B*K Trailer Connectors, Couplers, Clamps & Balls

Trailer Couplers—Quick and easy to open and close . . .
Trailer Clamps—Adjustable to all shapes and widths of bumpers. Rubber-lined for complete bumper protection . . .
Trailer Custom Connectors—Individually designed for all cars—quickly and easily installed—all exposed parts chrome-plated. Individually packaged.

B*K SERVICE PRODUCTS • INDIANAPOLIS, INDIANA



Good Ignition . . .

Your customers will get better performance, and appreciate it, if you check Ignition Contacts and Condenser every 5,000 miles; other Ignition Parts, Generator and Starter systems every 10,000 miles. This is profitable preventive maintenance.

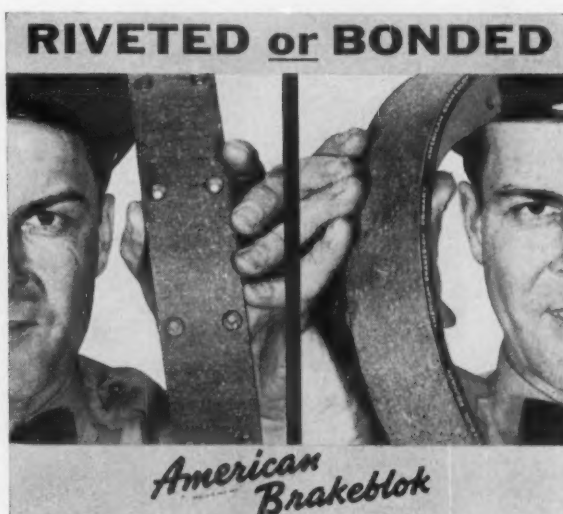
ECHLIN MANUFACTURING COMPANY • NEW HAVEN, CONNECTICUT



Famous Hand Tools

The complete Line of top-quality, professional Tools designed for mechanics by mechanics—including the great new Automatic Transmission Tools that open up this money-making service field for you. Ask for New Britain Tools. They're engineered to handle today's repairs and service—faster for you!

THE NEW BRITAIN MACHINE CO. • NEW BRITAIN, CONNECTICUT



For Top Quality . . . and Profit

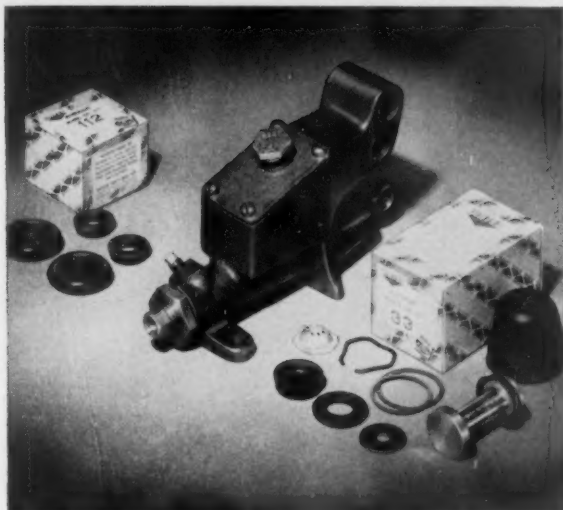
Riveted or bonded, American Brakeblok brake linings are first in quality, easy to install, and profitable to stock. That's why so many brake servicemen use American Brakeblok exclusively. American Brakeblok linings are available in bonded or riveted for all cars and light trucks, and in heavy-duty linings and thick blocks for trucks and buses.

AMERICAN BRAKEBLOK DIVISION • DETROIT 9, MICHIGAN

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of Parts"

nationally advertised brands for CARS, TRUCKS, TRACTORS • ALL MAKES • ALL AGES!



UNITED means dependability

UNITED Hydraulic Brake Parts are replacement engineered and specifically designed to completely restore the hydraulic brake system to peak operating efficiency. Automotive servicemen the world over have dependably applied UNITED brake parts for over a quarter century. Use UNITED. Your N•A•P•A jobber features this brand.

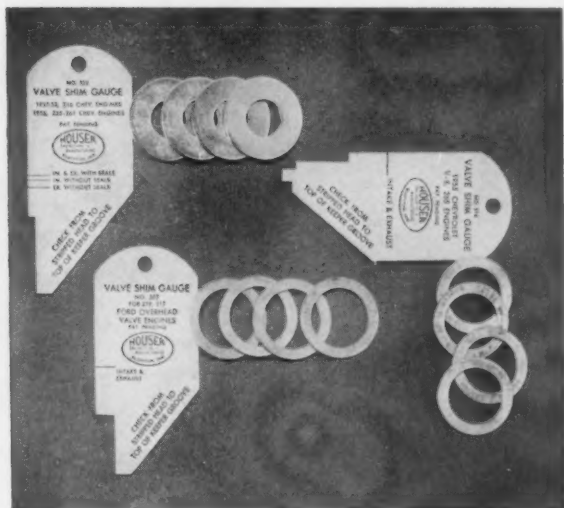
UNITED PARTS MFG. CO. • CHICAGO, ILLINOIS



OILOK Treated Paper Packing

OILOK is a treated fiber sheet packing, impervious to water, gasoline and oil. Available in 18" and 36" width rolls. Supplied in $\frac{1}{8}$ ", $\frac{1}{16}$ ", and $\frac{1}{32}$ " thicknesses. Its compressibility and sealing qualities adapt OILOK for oil pan, gear cover, and valve cover installation when ready-cut gaskets are not available.

MANUFACTURED BY VICTOR MFG. & GASKET COMPANY
FOR BALKAMP, INC. • INDIANAPOLIS



Balkamp Valve Spring Shims and Gauges

The quick, economical way to restore original valve-spring tension lost through normal wear on keeper, keeper-groove, valve-face and seat, or as the result of grinding operations. The Balkamp Valve Shim Gauge shows you the wear to be compensated for. Balkamp Shims do the job. For Chevrolet, Ford and Mercury overhead valve engines.

BALKAMP, INC. • INDIANAPOLIS, INDIANA

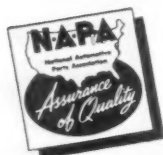


Fleet Bumper Lifts

Whether you prefer a hydraulic or mechanical one-end bumper lift for fast service, it is available in the FLEET line of jacks. In addition to these popular service models, you can get 36 other sizes and types of FLEET hydraulic or mechanical jacks for every lifting requirement from your N•A•P•A Jobber.

EDGEWATER AUTOMOTIVE DIVISION • ST. JOSEPH, MICH.

NAPA "PARADE OF PARTS" (continues)



N.A.P.A.

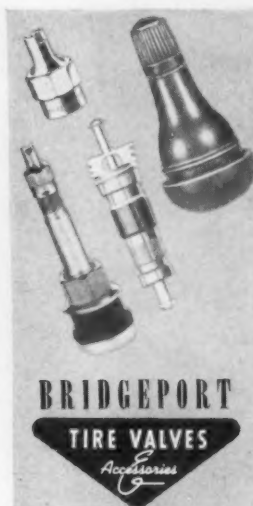
"Parade



Fast Turnover with Standard Seal Stocks

Standard Grease Seal Service Stocks make it easy, profitable to follow car manufacturers' recommendations—install new seals every time old seals are removed. No. 6 Stock: over 100 wheel seals for late model cars, light trucks. No. 7 stock: over 50 front wheel auto seals. All fast movers. Free metal cabinet, stock check card with application, price data.

STANDARD SEAL COMPANY • VAN WERT, OHIO



Smart Business Men Know This...

It's profitable to stock Bridgeport's complete modern line of Tire Valves and Accessories, and not load up with obsolete or duplicated items. That's why smart service station operators specify the up-to-the-minute Bridgeport line. Call your N.A.P.A. jobber today. He carries the Bridgeport line.

BRIDGEPORT BRASS COMPANY • BRIDGEPORT 2, CONNECTICUT



ECHLIN Ignition

VISUMATIC • Visual stock control • Room for expansion • Perpetually balanced stock • Annual modernization • Guaranteed against obsolescence • The part you want when you want it—

ECHLIN MANUFACTURING COMPANY • NEW HAVEN, CONNECTICUT



Put the Spotlight on SAFETY SERVICE

This new portable Displaymobile turns your Trico Stock Organizer Cabinet and Vis-U-Lid into a movable Wiper-Washer service department. It's a step-saver, a sales-maker... puts your merchandise where the car owner will see it. Use on service floor, lubritorium, or roll out to island near gas pump. Available free of charge with a small stock of arms or blades.

TRICO PRODUCTS CORPORATION • BUFFALO 3, NEW YORK

NAPA "PARADE OF PARTS" (continues)

of Parts"

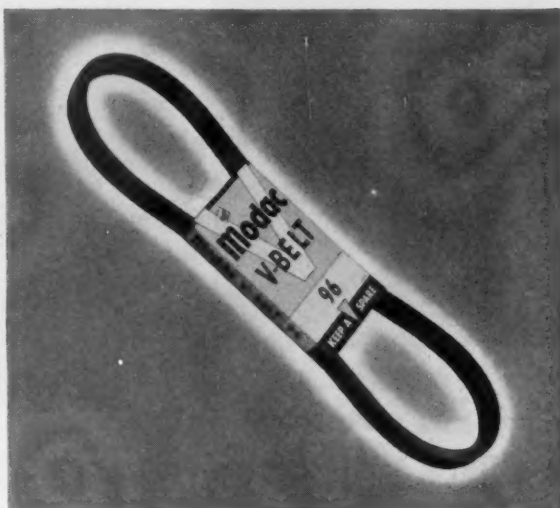
nationally advertised brands for CARS, TRUCKS, TRACTORS • ALL MAKES • ALL AGES!



Dittmer Transmission Gears

Since 1919 Dittmer Transmission Gears have kept automobiles and trucks operating all over the world. DITTMER products are recognized everywhere as top quality. They are truly "Second to None" in mathematical accuracy, metallurgical treatment and appearance.

DITTMER GEAR & MFG. CORP. • LOCKPORT, NEW YORK



MODAC Belts—for Long Life, Top Performance

Modac Automotive and F.H.P. belts are built for greater flexibility, greater strength with longest service life. Special bias-cut fabric cover combines with Super-Cordura rayon cords to produce belts with maximum durability and performance. Modac Belts are made in both regular and heavy-duty types for passenger car, truck, and tractor service.

HAYWOOD INDUSTRIES • WAYNESVILLE, NORTH CAROLINA



Balkamp Carburetor Kits and Parts

The quick, economical way to restore carburetor performance on *all* passenger cars and *all* popular trucks, tractors and *air-cooled engines*. Coverage includes Carter, Stromberg, Rochester, Holley, Zenith, I.H.C., Marvel-Schebler, Briggs & Stratton. All parts factory duplicates, individually inspected. Kits conveniently packaged with complete installation instructions and diagrams.

BALKAMP, INC. • INDIANAPOLIS, INDIANA

Other NAPA Lines

CLEVELAND Universal Joints

Cleveland Steel Products Corporation, Cleveland, Ohio

HAARTZ-MASON Friction Tape

Hartrt-Mason, Inc., Watertown, Massachusetts

K. O. LEE Valve Seat Inserts

K. O. Lee Company, Aberdeen, South Dakota

MICROTEST Axle Shafts

MicroTest Gear Company, Pottstown, Pennsylvania

MICROTEST Drive and Pinion Gears • Flywheel Gears

Balkamp, Inc., Indianapolis, Indiana

MODAC Service Hose, Auto Mats and Splash Guards

B. F. Goodrich Company, Akron, Ohio

RARITAN Roller Bearings

Raritan Bearing Corporation, Trenton, New Jersey

ROCKFORD Fasteners, Screws, Bolts and Nuts

Rockford Screw Products Company, Rockford, Illinois

ZOLLNER Heavy-Duty Pistons

Zollner Machine Works, Fort Wayne, Indiana

An example of the variety of sizes and jobs UTICA® adjustable wrenches will do



**If it's a job
for a wrench
BUY UTICA®
ADJUSTABLES!**

Extra Hardened for Longer Wear

No matter what the size of the job—you'll find a UTICA induction-hardened wrench to fit it.

Everyone who has used a wrench over a period of time knows that the jaws have a tendency to burr or nick.

But not UTICA® wrenches!

UTICA has developed a special electronic induction-hardening process that gives extra hardness to the jaw surfaces, yet, preserves the toughness of the steel in the rest of the tool. Controlled tests have proven that wrenches induction-hardened by UTICA last up to ten times longer than other wrenches.

UTICA® adjustable wrenches are available through your distributor or dealer in sizes ranging from 4" to 18"

Look for this same hardening process on a variety of special design pliers and standard styles manufactured by UTICA—from midjet tools to heavy duty cutters.

**See Your Distributor
for Complete Details**



In Canada: Adam Tool & Supply Co., Ltd., Montreal

Clarke Templeton Dies Unexpectedly

Clarke A. Templeton, who was a veteran of more than 30 years



service in the automotive industry, died unexpectedly January 28 at the Shoreham hotel in Washington, D. C. He was 52 years old.

Mr. Templeton, who was administrative assistant to Byron J. Nichols, vice president and general sales manager of Dodge Division, Chrysler Corporation, was in Washington to attend the annual convention of the National Automobile Dealers Assn. He was well known in automotive circles throughout the nation.

NCAWA Announces Collection Service

A recent bulletin issued by the North Carolina Automotive Wholesalers Association reveals that the Association "has been working out details of a State-Wide Collection Service" to assist its members in collecting past due accounts.

The Association points out that "experience by other state associations with a similar plan has proven that this service will work."

NCAWA's Collection Service works with a series of three letters, starting first from the member's office, then the Association's office and thirdly, from the Association's attorney.

"And there, son, you have the story of your Dad and the great war."
"Yes, Dad, but why did they need all the other soldiers?"

*"I've quit searching
for tools since
I've had my
**HUOT
TULDEX**"*

... says Henry Rigelhof,
Assistant Service Manager
for Whitcomb
and Blick,
Minneapolis'
oldest
Pontiac
dealer.



"The pull-out feature sure beats drawers for storing tools. They're always orderly and at finger-tip reach," according to this practical mechanic.

Since its introduction, the Tuldex has become the hottest item in the tool chest line. An entirely new idea for protecting and locating tools, it puts the master mechanic on a professional basis.

Six tool holding panels, 12" x 18", swing out on separate tracks. Holes drilled in the pegboard hang each tool on its separate mounting. There are more than 24 square feet of storage—twice as much as the average tool chest!

The heavy steel cabinet is fitted with top and bottom locks and the big drawer is just the right size for power tools. 29" x 26" x 13 3/4" overall.

Inquire from your jobber, or write
for descriptive circular.

HUOT

Pronounce
it "Hew-ot"

HUOT MANUFACTURING CO.

585 No. Wheeler St.
St. Paul 4, Minn.

*Special offer
introducing*



NEW CAR WAX BY DU PONT

CLEANS • WAXES • GLAZES

in one easy application

It's a sales sensation—the new one-operation wax by Du Pont that's swept all test markets! Specially formulated to keep today's beautiful new cars new-looking, Du Pont New Car Wax gives you terrific sales possibilities. It waxes with paste wax—weather-

proofs with silicones, and because the cleaner's in the wax, it cleans as it waxes. As easy to use as a liquid. Packed 12 to a case—and for a limited time you pay for only 11. Use the free can for easy, quick demonstration and sale.

E. I. du Pont de Nemours & Co. (Inc.), Specialties Sales, Wilmington, Del.

Buy 11—get **ONE FREE!**

DU PONT NO '7' PRODUCTS

From Chemical Research . . . For Easier Car Care



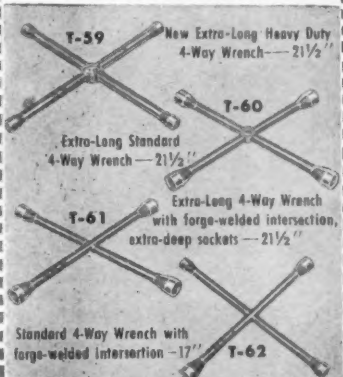
REG. U.S. PAT. OFF.

**BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY**

**GUARANTEED FOR LIFE
AGAINST BREAKAGE!**

Quality Passenger Rim Wrenches by **Ken-tool**

Preferred by tire repair men everywhere for their proven superiority and long life. Insist on these stronger, tougher, longer-lasting wrenches—hot-forged from chrome nickel alloy steel, with two 3/4" sockets for double life!



SEE YOUR JOBBER on the complete line of *Job-Designed Ken-Tools*. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. **THE KEN-TOOL MFG. CO., AKRON 5, OHIO.**



Better try the
new, improved
SOL-SPEEDI-DRI



- GREATER SLIP-RESISTANCE under all conditions!
- The most DUSTLESS oil and grease absorbent you can buy!

GET A FREE SAMPLE FROM

SPEEDI-DRI CORP., Menlo Park, N.J.

BUY BONDS

Binns Appointed To NADA Staff

Announcement of the appointment of John E. Binns (photo) to the staff of the National Automobile Dealers Association was made



recently by Rear Admiral Frederick J. Bell, USN (Ret.), executive vice president of the 30,000 member dealer association.

Under the direction of Mr. Binns the NADA will give added impetus to its program of management services to its members.

Admiral Bell said that Mr. Binns would be conducting seminar and group discussion meetings throughout the country. "Initially," he added, "the groups will be held to a limited attendance. This will give greater opportunities for individual participation

Classified Advertisements

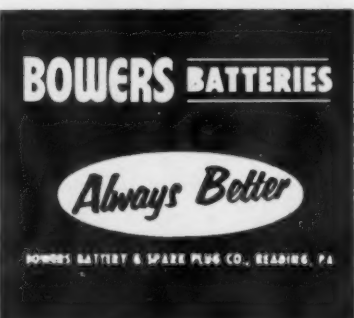
FOR SALE—Wholesale and retail auto parts in fast growing unincorporated part of Los Angeles County. Established 29 years. At intersection of two busy boulevards, right in automobile row. Nationally known brands of auto parts. Complete machine shop. Approximately \$50,000.00. Selling because of eye trouble. Write Box No. 31 in care of MOTOR AGE.

World famous Manufacturer of Auto-Electrical and Diesel Injection Equipment wants Salesman to establish and work with distributors. Extensive travel in large territory required at start. Compensation salary plus expenses. Excellent future possibilities. Handwritten applications with complete details of education, previous experience, earnings and salary desired to Box 99, MOTOR AGE, 5601 Chestnut St., Philadelphia 39, Pa.

U. S. company has Central America opening for Garage Foreman on single status. Supervising repair and maintenance gasoline and Diesel automotive equipment. Includes preventative maintenance schedules, emergency repairs and instructing native mechanics in proper work methods. Knowledge of Spanish helpful but not essential. Well established camp. Salary plus room and board. Box 36, MOTOR AGE, 5601 Chestnut St., Philadelphia 39, Pa.

on the part of dealers attending the conferences."

Mr. Binns comes to NADA from the American Management Association where he was Director of Public Relations and Executive Assistant to the President. He is a graduate of Pennsylvania State Univ. and most of his business life has been spent in the field of personnel and industrial relations.

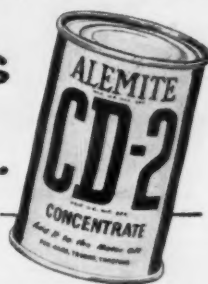


FREE!

(DURING FEBRUARY AND MARCH ONLY!)



1 can each of 2 profitable
NEW Alemite products
with each case of...



...to give you

\$2³⁵ EXTRA PROFIT
on every case of CD-2 you sell!

With every case of CD-2, you will receive, *absolutely free*, one can of new Alemite Kleen Treet and one can of new Alemite Cooling System Conditioner! This boosts your normal profit by 20%, giving you an *extra profit* of \$2.35 per case!

It's a limited-time offer—to get you and your customers acquainted with two new top-quality Alemite products . . . *two more products* to help you cash in on the famous Alemite name! After you've tried them, you'll want to lay in a supply — to get ready for the demand from the millions of car owners who already are regular satisfied users of CD-2 . . . who are already reading about these new products in national magazines from coast to coast!

All 3 of Alemite's Money-Making Automotive Chemical Products Are Featured in Alemite's Biggest Advertising Campaign Ever!

- | | | |
|--------|---------------------|--------------|
| • LIFE | • TRUE | • NEWSPAPERS |
| • POST | • POPULAR MECHANICS | • RADIO |
| • LOOK | • POPULAR SCIENCE | • TV |

ALEMITE

REG. U. S. PAT. OFF.

1826 Diversey Parkway, Chicago 14, Illinois



Step Up Your Profits with New Alemite Kleen-Treet!

Kleen-Treet's amazing results will guarantee repeat business for you! Cleans carburetor and fuel system . . . reduces annoying high compression ping . . . prevents stalling due to icing . . . lubricates fuel pump and upper cylinder area for better engine action.

List, \$1.35

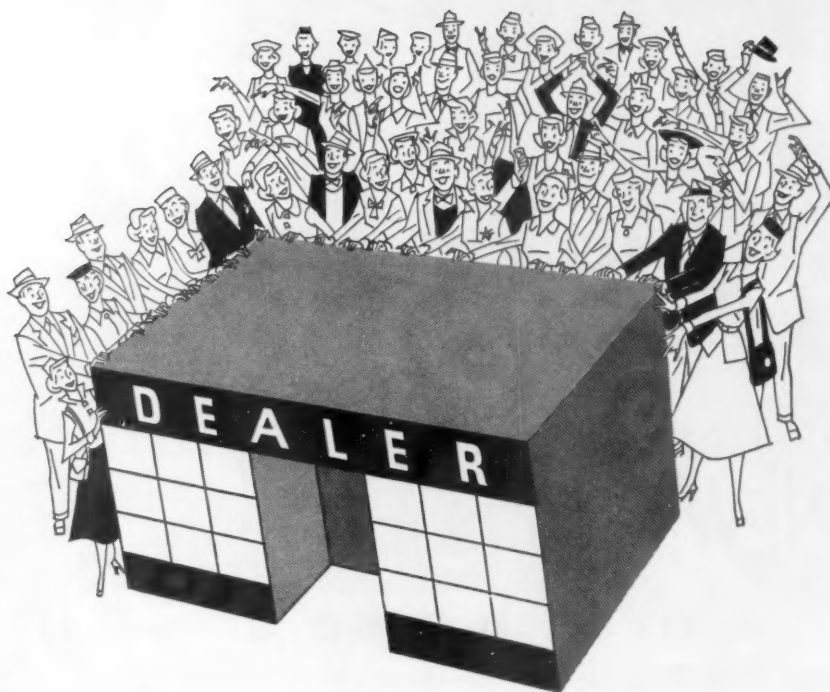
Step Up Your Profits with New Alemite Cooling System Conditioner!

New Alemite Cooling System Conditioner gives on-the-road cleaning! No more messy flushing and draining. Prevents rust . . . lubricates water pump and ends annoying water pump squeal. Works with either hard or soft water.

List, \$1.00



**Take Advantage of
this Special Limited-Time Alemite Offer Now!
Call Your Jobber Today!**



They back the store that backs the brands they want

Be smart. Make it your store.

It's easy: just keep a check on which brands your customers *really* want; then promote them continuously. Surveys show that demand is 8 to 1 for products with familiar brand names, because of uniform goodness and better values. That means fast turnover and steady profit.

You benefit many ways by pushing trusted products: there are fewer losses, because responsible manufacturers make good on adjustments; fewer mark-downs, because of fast turnover; lower sales costs, because of strong pre-selling by powerful advertising and promotional materials; good will because of uniform quality.

Easy to see: back chosen brands and you back yourself.

* * *

How do you push the brands that boost your business? Your method could win you national attention and local prestige in the Brand Name Retailer-of-the-Year competition. Write for details.

BRAND NAMES FOUNDATION

INCORPORATED

A Non-Profit Educational Foundation

437 Fifth Avenue, New York 16, N. Y.

FOR THE BUSINESS YOU WANT, PROMOTE THE BRANDS THEY WANT

YOU ASKED FOR IT...SO RUST MASTER'S

BIG

6 for 5*

DEAL IS ON AGAIN!

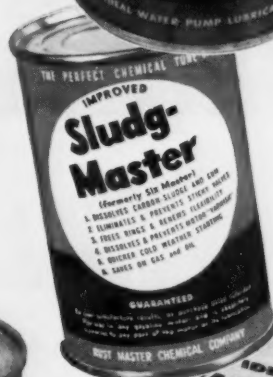
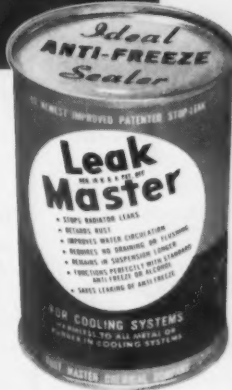
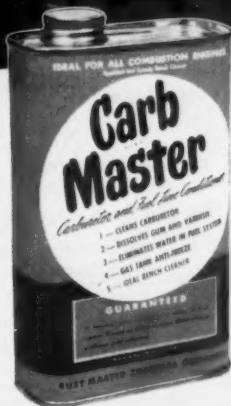
*YOU GET SIX AND ONLY PAY
FOR FIVE

The Extra One is **ALL PROFIT!** Cash In On This Guaranteed Sure-Fire Deal! STOCK UP ON THE **BIG PRODUCTS** with THE **BIG PROFITS!** RIDE THE BIGGEST CONSUMER DEMAND EVER! Year 'round selling season! — Greater Customer Satisfaction! **DON'T MISS ANY PART OF THIS DEAL— ORDER FROM YOUR SUPPLIER RIGHT AWAY!** IT'S UP TO YOU HOW MUCH YOU MAKE!

HERE'S HOW IT WORKS . . .
WHEN YOU ORDER 6 YOU GET ONE FREE!

- | | |
|--|--------------------------------|
| 1) You Pay for 5 RUST MASTER — | You Get ONE RUST MASTER FREE! |
| 2) You Pay for 5 LEAK MASTER — | You Get ONE LEAK MASTER FREE! |
| 3) You Pay for 5 SLUDG-MASTER — | You Get ONE SLUDG-MASTER FREE! |
| 4) You Pay for 5 CARB MASTER — | You Get ONE CARB MASTER FREE! |
| 5) You Pay for 5 ASSORTED — | You Get ONE LEAK MASTER FREE! |
| Offer Works on any Multiple of 6! Order as Many as You Want! | |

**NO FUSS
NO MUSS
JUST POUR
NO MORE**

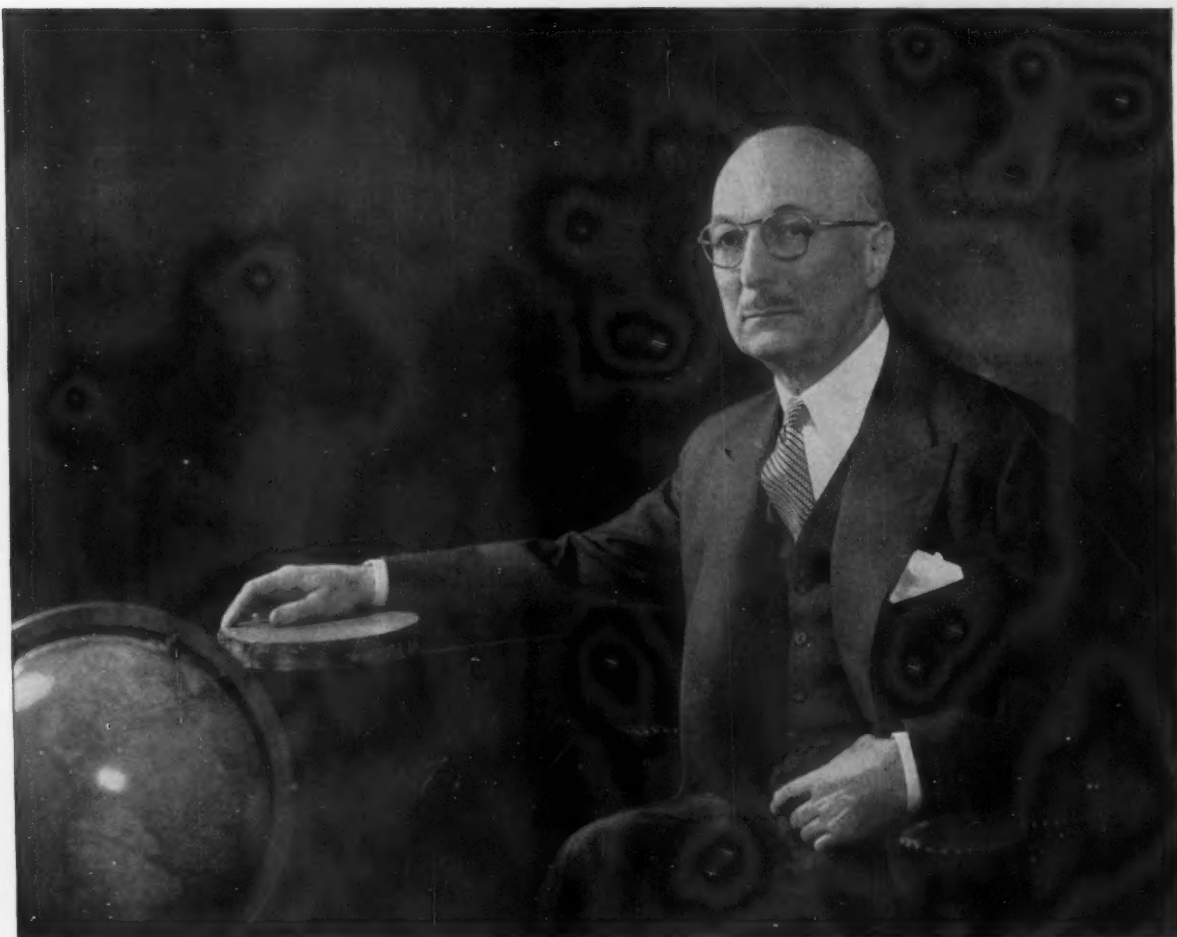


PRODUCTS WORK WHILE YOU RIDE!

Rust Master
CHEMICAL CORP.
MFG. CHEMISTS

50-50 CREIGHTON ST., CAMBRIDGE 40, MASS.
The silent partners of motor efficiency

***IMPORTANT—THIS
SPECIAL 6 FOR 5 DEAL
IS GOOD ONLY FROM
FEBRUARY 1, 1956
THROUGH
APRIL 30, 1956**



J. D. ZELLERBACH

Portrait by Fabian Bachrach

"Good business is for everybody..."

"At Crown Zellerbach we have 24,000 employees who, like the company, have bills to pay, plans to finance, and emergencies to anticipate. This requires saving.

"Crown Zellerbach saves a portion of its annual income in U. S. Government securities. This saving is safe, systematic and, with interest, profitable. Our employees follow the same 'Good business' practice through the Payroll Savings Plan.

"At our Camas, Washington, paper mill, for instance, 1,654 employees out of a total of 2,640 set aside a portion of their income last year and bought over \$450,000 worth of U. S. Savings Bonds on the Payroll Savings

Plan. To them this means money for the goods of today, the ambitions of tomorrow, and the security of the future. And this way of saving has the same advantages for an individual as for a company—a safe investment, a convenient method, and a profitable return.

"'Good business', then, is not just for business. 'Good business' which includes systematic saving in Government bonds is for everybody."

J. D. ZELLERBACH, President
Crown Zellerbach Corporation
Chairman, Committee for Economic Development
Chairman, National Manpower Council

If you do not have the Payroll Savings Plan . . . or if you have the Plan and employee participation is less than 50% . . . write to Savings Bond Division, U. S. Treasury Department, Washington, D. C. Your State Sales Director will be glad to help you express your agreement with Mr. Zellerbach... "Good business is for everybody."

The United States Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

MOTOR AGE

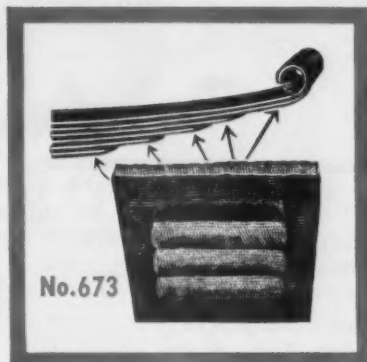




Hundreds of TIME SAVERS MONEY MAKERS in the CHAMP-ITEMS LINE

• When you have a service problem, turn to the Champ-Items catalog of automotive parts especially designed to help you "lick" tough service jobs.

WRITE FOR
1956 CHAMP-ITEMS CATALOG



No. 673



No. 126

No. 126 UNIVERSAL ADJUSTABLE SPRING CLAMP for late model cars. A quick and easy repair. Made for wide springs of late model cars. A permanent repair clamp.
List .50 ea.

No. 673 SPRING LEAF SILENCING PADS for 1955 Chevrolet and 1949-55 Ford, Mercury and other cars. Made of a very fine grade of Solid Woven Webbing (Wax Impregnated). Stops squeaks—lasts longer—easier riding.
List .15 ea.

ORDER FROM
YOUR JOBBER



CHAMP-ITEMS, INC. 6191 Maple Ave., St. Louis 14, Mo.

XCELITE Hand Tools
PREFERRED BY THE EXPERTS

BIG HANDLES
FOR A REAL GRIP

The rugged plastic handles of XCELITE screwdrivers are $\frac{3}{8}$ " to 1-5/16" dia. They fit your hand and fill your hand!

BIG SIZE
RANGE FOR
ALL YOUR JOBS

Stubby to 24" blades
 $\frac{1}{8}$ " to 7/16" tips

XCELITE
Square Bladed
Screwdrivers

BIG
QUALITY FEATURES

... such as Chrome-Vanadium blades with tips accurately ground and gaged to fit the screw slot snugly. Sure, an XCELITE screwdriver costs a little more—but put one in your hand and you'll never want to work with anything less! ASK YOUR AUTO SUPPLIER.

XCELITE, INC.

Dept. K
Orchard Park,
New York

For Originality
LOOK TO **XCELITE**

The **PIONEER** Tool
FOR INSTALLING VALVE SEAT RINGS

The Biggest
Seller



THE FIRST... and still the MOST POPULAR, MOST PRACTICAL, SIMPLEST, MOST UNIVERSAL tool of its kind made.

EVERLASTING... the first tools made over 25 years ago are still in service.



K.O. LEE CO.
ABERDEEN, SOUTH DAKOTA

If it's made by Lee it's a "Knock-Out"

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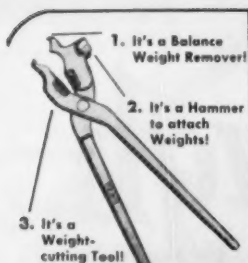
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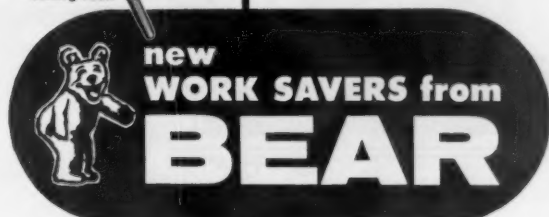
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NEW, IMPROVED 3-in-1 WEIGHT PLIERS!

Get this handy combination tool for easier, faster wheel balancing. Really does the job... jaw points inserted between clip and rim snap off weights in a jiffy. Especially handy for On-A-Car Balancers — balancer head will not interfere with weight removal. Order from your Jobber or write us for catalog data.



No More "Problem Wheels" when balancing off the car! Complete line of NEW RADII CONES!

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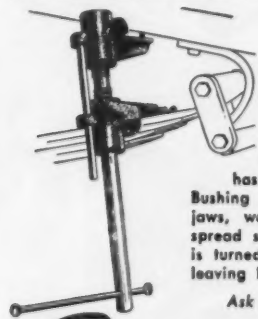
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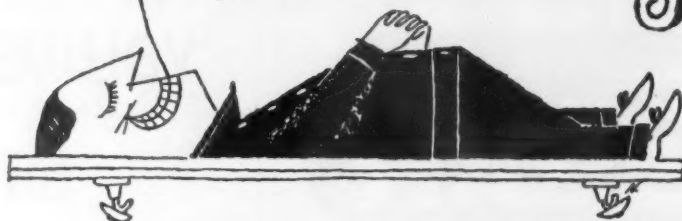
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The Last Laugh



A Motorist Prayer

"Teach us to drive through life without skidding into other people's business. Preserve our brake linings that we may stop before we go too far. Help us to hear the knocks in our own motors and close our ears to the clashing of other people's gears. Keep alcohol in our radiators and out of our stomachs. Absolve us from the mania of trying to pass the other automobile on a narrow road. Open our eyes to the traffic signs and keep our feet on the brakes."

"Did you hear about Jim? He went blind drinking coffee." "Really? How did it happen?" "He left the spoon in the cup."

"Pull over, mister," said the traffic officer. "You haven't any tail light."

The motorist got out for a look and was speechless with dismay.

"Oh, it isn't that bad," said the officer.

And the motorist quavered: "It isn't the tail light that bothers me, but what became of my trailer?"



Barber: Was your tie red when you came in?

Man: No.

Barber: Gosh!

A proud 16-year-old turned into his driveway at the wheel of the family car. His father sat beside him. Several younger brothers emerged on the scene.

"Listen," shouted the happy driver. "I just passed my driving test. You guys can all move up one bike."

"All the boys back yet?"

"Yep!"

"All six of them?"

"Yep!"

"All safe?"

"Yep!"

"Then I've shot a deer!"

First burglar: "Someone's knocking at the door. What'll we do?"

Second burglar: "Let's jump out the window."

First burglar: "But we're on the 13th floor of this hotel!"

Second burglar: "Listen brother, this is no time to get superstitious!"

Mac: "How're things at home?"

Jack: "Well, the old woman ain't talking to me, and I'm in no mood to interrupt her."

Ted: Is Sam still mopping floors for a living?

Jed: Yep, he's the same ole floor flusher.

Little boy to teacher: "With two older sisters and one bathroom, I'd like to see you get to school every day on time."

"I enjoy watching kids eat candy, ice cream, hot dogs and sodas."

"You have a kind heart."

"No, I sell castor oil."

At the beginning of a speech, applause expresses faith; in the middle, hope; at the end, charity.



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Here's what you get:

- FINEST** Immediate Seat-In without engine drag
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- FINEST** Longer Service Life because of Ramco's years ahead precision engineering

Ramco means more power . . . longer! Regardless of the engine year, make or service requirement, you can depend on it—a years ahead ring combination in the Ramco Line to Do the Job Right! See your Ramco Jobber for the **INSIDE FACTS BOOKLET** explaining scores of advanced Ramco features, including those above. Or write Ramsey Corporation, St. Louis 8, Missouri.

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Whether bonded or riveted, it's the lining that makes the brakes. Today's drivers demand quick, safe stops. Be sure your customers are ready for higher speeds and heavier traffic. Use only Thermoid Custom-Built Brake Lining—the safest thing on wheels!

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